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# Supreme Court of the United States.

LINCOLN GAS & ELECTRIC LIGHT COM-  
PANY,

Appellant,

*v.*

THE CITY OF LINCOLN *et al.*,

Appellees.

October Term,  
1917.  
No. 300.

## BRIEF OF APPELLANT.

### Statement.

This is an appeal from the judgment of the United States District Court for the District of Nebraska, Lincoln Division, which confirmed a report of a Special Master to whom this case was referred.

This action was instituted in December, 1906, by appellant against The City of Lincoln, and others, praying for the following relief:

(1) For an injunction restraining the City of Lincoln from enforcing a certain ordinance, No. 432, of said City, adopted on or about November 19th, 1906, providing, in substance, that no gas company in said City shall charge more than \$1.00 net per M cubic feet of gas sold;

(2) For an injunction restraining the City from enforcing a certain ordinance of said City, adopted on or about December 10th, 1906, which purports to pro-

vide for and assess an occupation tax upon all gas companies in the City of Lincoln.

The action also necessitates the determination of the construction and validity of the company's franchise rights in the City of Lincoln, and a decision as to whether or not said franchise is a perpetual one.

At the outset, we beg to call the attention of this Court to the fact that the decision in this case is a matter of the gravest concern to the appellant. We state, without fear of contradiction, that it is a veritable struggle on behalf of the company for its continued existence, and in the event that the judgment of the Court below is affirmed, it is a serious question as to whether or not the company can successfully maintain its operations and the service in which it is engaged. That we are not exaggerating the situation can be illustrated by a mere glance at the conclusion which is reached by the Master and confirmed by the Court below:

#### 1913 VALUATION.

As fixed by Master	As fixed by Company
\$676,565.	\$1,090,913.
Net Earnings for 1912 at One Dollar Rate.	
As fixed by Master	As fixed by Company
\$46,658.	\$21,817.

#### 1907 VALUATION.

As fixed by Master	As fixed by Company
\$436,565.	\$784,682.
Net Earnings for 1907 at One Dollar Rate.	
As fixed by Master	As fixed by Company
\$22,349.	\$17,663.

The Master fixed the value of the properties of the appellant devoted to the service of the public in the City of Lincoln, in 1912, at \$676,565. During the pendency of this litigation, a preliminary injunction was in force against the operation of the Rate Ordinance, dur-

ing a great part of which time the company has been collecting \$1.20 per M cubic feet of gas sold, and the company has given a bond fixed and approved by the Court for the return of the extra 20c. per M cubic feet, in the event this case is decided against the company. This amount which the company will, in such event, be obligated to repay to gas consumers, and for which it has given its bond, is now \$525,000. The difference between the total value of the plant, in 1912, as fixed by the Master and confirmed by the Court below, and the amount necessary to reimburse consumers in the event of an affirmance, is \$151,565, which is all that would be left the company in the event of an adverse decision of this Court. And this is true in spite of the Master's findings that the company has never paid any dividends on its stock, and that its entire earnings have been utilized in paying operating expenses, bond interest, and in making improvements and additions to its properties (which are included in the Master's valuation).

This result is so astounding that it must, we submit, challenge the attention of this Court to the grave injustice which the company has borne by reason of the decision of the Master and the confirmation of his report by the Court below.

The institution of this action was forced upon the company by a campaign of aggression on the part of the City toward the company, beginning about the year 1904. In the early part of the year 1906, the City passed a Gas Quality and Pressure Ordinance, which materially increased the cost of manufacture of gas, and correspondingly reduced revenue. This was followed, in November of that year, by the ordinance attempting to reduce the rate for the sale of gas above referred to, and in December, 1906, by the Occupation Tax Ordinance. The company then commenced this action to

prevent the confiscation of its properties. As expressed by Mr. Justice Holmes, on the argument before this Court at the prior appeal, "The City was putting the screws on the company."

### **History of this Case.**

The trial of this action was commenced in 1908, before Munger, D. J., whose decision on the question of the validity of the ordinance (which involved a valuation of the company's properties and a determination of its return upon its investment) was adverse to the company, and the bill as to the Rate Ordinance was dismissed.

An appeal was thereupon taken to the Supreme Court of the United States, and the decision of the Court below was reversed by a unanimous Court, with an opinion by Mr. Justice Lurton (reported 223 U. S., 349). The decision of the Supreme Court in this action is exceptional, in that it is one of the few cases in history where a judgment sustaining a rate ordinance has been reversed. It is important, also, because the reasons for reversal are so pertinent to the questions now before the Court.

Mr. Justice Lurton first presents a concrete statement of the issues presented by such a case. He said (p. 357):

"In this, as in every other legislative rate case, there are presented three questions of prime importance: First, the present reasonable value of the company's plant engaged in the regulated business; second, what will be the probable effect of the reduced rate upon the future net income from the property engaged in serving the public; and, third, in ascertaining the probable net income under the reduced rates prescribed, what deduction, if any, should be made from the gross re-

ceipts as a fund to preserve the property from future depreciation."

He then discussed the estimated value as found by the Court below, which was stated in the form of itemized conclusions, setting forth fixed amounts with practically no discussion of the evidence upon which the conclusions were based. This method of merely stating conclusions lead Mr. Justice Lurton to remark (p. 361):

"This case is full of difficult and grave questions. Such conclusions as to facts as are found in the Court's opinion are not helpful when, as here, errors are assigned which open up substantially the whole case. The cause should have gone at the beginning to a skilled master, upon whose report specific errors could have been assigned and a ruling from the Court obtained."

And again, on pages 364-5:

"The facts found are not full enough to at all justify this Court in dealing with this problem of a replacement fund.

"There should be a full report upon past depreciation, past expense for reconstruction or replacement, and past operating expenses, including current repairs. We should be advised as to the gross receipts for recent years, and just how these receipts have been expended. Then the amount to be set aside for future depreciation will depend upon the character and probable life of the property and the method adopted in the past to preserve the property. It can be readily seen that the amount to be annually set aside may be such as to forbid rate reductions because of the requirement of such a fund. The matter is one first for a skilled master, who should make a full report upon the value of the property, the receipts and the expenses of operation and the sums paid out on reconstruction and replacements, and in dividends in recent years.

"For the reasons indicated, we direct that the decree be

*"Reversed, and the cause remanded to the District Court to refer the case to a competent and skilled master, to report fully his findings upon all of the questions raised by either party, separately, and with leave to both parties to take any additional evidence they may wish within a time to be fixed by the Court, and that that Court upon such report proceed as equity shall require."*

It is obvious, therefore, that what the Supreme Court wanted was a careful consideration by a skilled master, whose report should be *full* and *complete*, and should show not only his *conclusions*, but his *reasons*; not only his *final results* in *dollars*, but his *method of calculation* and his justification for adopting the same.

#### **Report Should Be Recommitted to Master.**

The reason for our discussion of this matter at the outset of this brief is, that it is our contention that the instructions of this Court in its former decision have not been carried out, in spite of all the efforts of the Company in respect thereof. We now maintain that in spite of the mass of testimony which the Company took pains to introduce, as well as the testimony introduced by the City's witnesses, that still "the facts found are not full enough to at all justify this Court" in dealing with the various problems which this appeal presents; that there is not "a full report upon past depreciation, past expense for reconstruction or replacement, and past operating expenses, including current repairs;" nor is there a report upon "the character and probable life of the property," and in no sense is the report which the Master has made a "full report upon the value of the property." It has been the Company's position, and still is its contention, ever since the report of the Master was filed, that the report should be recommitted to the Master for further findings of fact, in order that he

be compelled "to report fully his findings upon all of the questions raised by either party separately," which he has obviously failed to do. A motion to this effect was made by the Company, but was denied (Transcript, pp. 74 and 75).

We maintain that it is clear from the Master's report that he has completely misunderstood the purpose for which he was appointed, as his report clearly indicates. He said at the outset of his report, under the heading, Preliminary Observations: "A summarization of this evidence is quite impossible, and would, as far as I can see, aid neither Court nor counsel in testing the correctness of the conclusions which I have reached" (Transcript, p. 36). It is quite obvious that such a summary is not "impossible," because it has been done by the various special Masters who have been appointed in rate cases which have heretofore come before this Court; and it is equally clear that it would materially aid both Court and counsel, and, in fact, this case was sent back by this Court for the very purpose of adopting a course which the master states he has determined not to pursue. He states further, "to give the names of witnesses, together with what I might conceive to be a fair condensation of their testimony upon any controverted point, would, as I view it, be altogether valueless" (Transcript, p. 36). We think this statement is particularly significant, in view of the testimony introduced by the various witnesses in this case. A great part of the City's testimony on valuation was introduced through a witness, whom the City made its principal witness. He was one Alton D. Adams, whom the City put forward as an expert in valuation of properties of this class. Not only was Mr. Adams' right to speak as an expert on these matters constantly challenged throughout the course of the hearings before the Master, but his good faith and veracity were continually assailed

by counsel for the Company, and it was maintained by them that his testimony was worthless and should have been completely disregarded by the master. In view of this issue which was thus so sharply raised, we submit that we were entitled to an expression of opinion from the Master as to just what value he placed on the testimony of the City's witness, Mr. Alton D. Adams, and just how far the master's conclusions were affected by that testimony. The Master does not give us this information; instead, throughout his report he merely mentions the two figures of valuations for the various items of property and equipment, one given by the City's witness, Mr. Alton D. Adams, and the other by the company's witness, Mr. Henry I. Lea, and in the great majority of instances, the master, without discussion or without giving reasons, strikes somewhere between the two figures in reaching his conclusions.

This method of reporting findings is, we insist, not in accordance with the instructions of this Court, especially in view of the questions raised as to the particular witness's competency and reliability.

The Master further says: "The evidence, which is for the most part, opinion evidence, and generally unreconcilable, makes my conclusions in regard to values, at best, nothing more than fair approximations" (Transcript, p. 36).

We repeat, that in view of the fact that the testimony of the opposing experts was "unreconcilable," and the right of one of those experts to speak as such was directly challenged, it was especially incumbent upon the Master to give his views as to the weight which should be attached to the testimony of the opposing witnesses, and how much he was influenced by the opinions of each. Otherwise, it is impossible to test the correctness of his conclusions.

Similarly, in arriving at his conclusions as to the proper percentage for overhead charges, he says:

"Just what it should be is a question about which there is much difference of opinion among engineers, courts and commissions. In this case Mr. Lea puts it at sixteen per cent., and Mr. A. D. Adams at seven per cent. The matter is not governed by any inflexible rule, but is to be determined in every case by the exercise of good sense and sound discretion. \* \* \* \* My judgment upon the matter is that an allowance of twelve and one-half per cent. on the total net construction cost of the physical property, excepting real estate and working capital, is sufficient to cover all overhead expenses, including engineering, superintence, legal expenses, taxes, interest during construction, omissions and contingencies, casualty liability, and whatever else is usually classified under this caption. This is necessarily an estimate based almost entirely upon expert testimony." (Transcript, pp. 37 and 38.)

The difference between seven per cent. and sixteen per cent. for overhead charges constitutes a great divergence of opinion. One or the other of the experts before the Master must have given testimony which was wide of the mark; but the Master gives no intimation as to whose testimony he relied upon, nor does he segregate his total percentage so that we can scrutinize and analyze the various items which together make up the aggregate and determine how much should be apportioned to each element of overhead. These were matters which were gone into exhaustively in the testimony, and each witness was examined and cross-examined at great length upon the subject. Again, in his findings on the value of Works Equipment the Master says:

"The evidence of values comes principally from the experts, Lea and Adams, and clashes irreconcilably

at almost every point. In considering the evidence of these experts, I have been aided, of course, by the testimony of other witnesses, and by reports, letters, bills, contracts, vouchers, and other documentary proofs. Upon every disputed item all the evidence, oral or written, which I have been able to find in the record, has been examined, considered and given in the decision reached, its proper weight of influence. After ascertaining the reproduction cost, which is in the aggregate \$198,868, and making proper deductions for depreciation, I present here, without discussion of the evidence, my conclusion that the present value of the 73 units which compose this division of the Company's property is \$179,310." (Transcript, p. 40.)

The values which the Master finds are, in almost every case, somewhere between the value of Mr. Lea and Mr. Adams. If the evidence of these two witnesses "clashes irreconcilably at almost every point," it is, we submit, the duty of the Master to give some inkling in his report as to what evidence he relied upon, and to summarize the various unit costs which he used in arriving at his conclusions (that is, if he used any unit costs), rather than merely to assure us that all the evidence has been "given . . . its proper weight of influence."

In concluding these remarks as to the Master's method of reporting his findings in the form of general conclusions, we beg to reiterate that such a method was not in accordance with the Court's instructions, and that, furthermore, this method puts the party who is objecting to the Master's findings in an unfavorable situation, because that party is unable to fully analyze the Master's conclusions and point out where they are in error. We hesitate to say that the Master's report was couched in general terms deliberately in order to hinder analysis, but we will state, and we will stand ready to prove affirmatively, that in those instances in

the Master's report where he gives us enough figures for a basis of comparison and analysis, it clearly appears that his findings were not based upon the evidence at all, but were mere figures picked at random somewhere between the estimates of Mr. Lea and Mr. Adams, the result of which is a conclusion which is not supported by any testimony whatsoever. These instances will be given later in this brief. But we wish to here renew our former demand that the Master's report should be recommitted to him for complete findings, in accordance with the instructions of this Court.

**Findings of the Master Are Not Conclusive Upon  
This Court.**

This Court is not concluded by the findings of the Master, even though the same are confirmed by the Court below, where specific assignments of error raise questions involving the correctness of the findings, as shown by the evidence.

This principle was recognized in the case of *Knoxville v. Knoxville Water Company*, 212 U. S., 1, in which action the validity of a rate-making Ordinance was challenged, and the case came to the Supreme Court after having been referred to a Master whose findings were confirmed by the Court below. In that case Mr. Justice Moody said, that in view of the character of the judicial power invoked in such cases, it was not tolerable that its exercise should rest securely upon the findings of a Master, even though they be confirmed by the Trial Court; that this power was best safeguarded against abuse by preserving to the Supreme Court of the United States complete freedom in dealing with the facts of each case; that nothing less than that was demanded by the respect due from the judicial to the legislative authority. The Court made it clear, however, that the findings of a Master, confirmed by the

Trial Court, were not without weight, or that, as a practical question, they would not sometimes be regarded as conclusive, but it was definitely decided that in cases of this character the United States Supreme Court would not fetter its discretion or judgment by any artificial rules as to the weight of a Master's findings, however useful and well settled those rules may be in ordinary litigation.

#### **Assignment of Errors.**

The assignment of errors relied upon in this appeal are as follows:

##### **I.**

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in dismissing plaintiff's complaint in so far as it relates to the ordinance of the City of Lincoln establishing a rate of charges for gas in said city.

##### **II.**

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in dissolving the restraining order theretofore granted by said court against the enforcement of the ordinance of the City of Lincoln establishing a rate for charges for gas in such city.

##### **III.**

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in approving the special master's report and overruling the plaintiff's exceptions thereto.

##### **IV.**

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in not

finding and decreeing that the ordinance set out in plaintiff's bill, establishing the rate to be charged for gas in the City of Lincoln would be a violation of Article V of Amendments to the Constitution of the United States, in that by the enforcement of said ordinance, the plaintiff would be deprived of its property without due process of law.

V.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in not finding and decreeing that the ordinance set out in the complaint establishing the rate to be charged for gas in the City of Lincoln, to be a violation of Article V of the Amendments to the Constitution of the United States, in that by the enforcement of said ordinance, the private property of the plaintiff would be taken for public use without just compensation.

VI.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in not finding and decreeing that the ordinance set out in plaintiff's bill establishing the rate to be charged for gas in the City of Lincoln, would be a violation of Section 1 of Article XIV of Amendments to the Constitution of the United States, in that by its enforcement the plaintiff would be denied the equal protection of the laws.

VII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in not finding and decreeing that the ordinance set out in the complaint establishing the rate to be charged for gas in the City of Lincoln to be a violation of Section 1

of Article XIV of the Amendments to the Constitution of the United States in that by the enforcement of said ordinance the plaintiff would be denied the equal protection of the laws.

#### VII A.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in not finding and decreeing the present value of plaintiff's property, used and useful in the manufacture and sale of gas in the City of Lincoln as of January 1, 1907, to be \$784,682.00.

#### VII B.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in not finding and determining the present value of the property of the plaintiff, used and useful in the manufacture and sale of gas in the City of Lincoln as of January 1, 1913, to be \$1,090,913.00.

#### VIII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in excluding the cost of reopening and replacing pavements over gas mains and services on paved streets as a necessary part of the reproduction cost of the property.

#### IX.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in refusing to find and determine that the plaintiff was entitled to a fair return from the actual investment, not improvidently made in the property, or to a fair return upon the reproduction cost new less depreciation, and the court was not warranted in adopting the reproduc-

tion cost, less depreciation, in those instances only where it would secure a lower valuation than the investment cost, and use the investment cost as a basis of present value in those instances only where it could secure a lower valuation than the reproduction cost new, less depreciation.

## X.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling the Plaintiff's Exception Number 7 to the report of the special master as follows:

"That the Master in said report stated and certified that the reproduction cost of Works Equipment in controversy is the sum of \$198,868.00, whereas the Master ought to have found, stated and certified the reproduction cost of said Works Equipment to be not less than \$253,298.00."

## XI.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in not finding and determining the reproduction cost of Works Equipment of the plaintiff, used and useful, in the manufacture and sale of gas in the City of Lincoln, as of January 1, 1913, to be the sum of \$253,298.00.

## XII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling Plaintiff's Exception Number 8 to the Master's report as follows:

"That the Master in said report stated and certified that the value of the Works Equipment in controversy is the sum of \$179,310.00, whereas the Master ought to have found, stated and certified the value of said Works Equipment not less than \$196,759.00."

## XIII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in not finding and decreeing the present value of Works Equipment of plaintiff used and useful in the manufacture and sale of gas in the City of Lincoln, as of January 1, 1913, to be \$196,759.00.

## XIV.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling Plaintiff's Exception Number 62 as to the Master's report as follows:

"That the Master in said report stated and certified that the net construction cost of the mains in controversy, laid in unpaved street, is the sum of \$173,700, whereas the Master ought to have found, stated and certified the net construction cost of said mains to be not less than \$179,814.00."

## XV.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in not finding and determining the net construction cost of mains laid in unpaved streets in the City of Lincoln to be as of January 1, 1913, \$179,814.00.

## XVI.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling Plaintiff's Exception Number 63 to the Master's report as follows:

"That the Master in said report stated and certified that the net construction cost of the services is the sum of \$76,116.00, whereas the Master ought to have found, stated and certified the value of said services is not less than \$111,689.00."

## XVII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in not finding and determining the value of services used and useful, and a part of the distribution system of the plaintiff in the City of Lincoln as of January 1, 1913, to be the sum of \$111,689.00.

## XVIII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling Plaintiff's Exception Number 69 to the Master's report, as follows:

"That the Master in said report stated and certified that he made no allowance for reproduction cost of paving over Mains and Services, where as the Master ought to have found, stated and certified and made an allowance for present value of Paving Over Mains and Services in the sum of not less than \$142,291.00."

## XIX.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in not finding and determining the present value of plaintiff's property on the basis of the reproduction cost, new, less depreciation, and including therein as a part thereof, the additional cost incident to and necessarily incurred in the reopening of paved streets for the purpose of laying gas mains therein.

## XX.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling Plaintiff's Exception Number 70 to the Master's report, as follows:

"That the Master in said report stated and certified that the Net Construction Cost of the Distribution System is the sum of \$352,192.00, whereas the Master ought to have found, stated and certified the Net Construction Cost of the Distribution System is not less than \$529,736.00."

## XXI.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in not finding and determining the net construction cost of the distribution system of the plaintiff as of January 1, 1913, to be \$529,736.00.

## XXII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling Plaintiff's Exception Number 71 to the Master's report as follows:

"That the Master in said report stated and certified that the Reproduction Cost of the Distribution System is the sum of \$396,216.00, whereas the Master ought to have found, stated and certified the Reproduction Cost of the Distribution System is not less than \$614,493.00."

## XXIII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in not finding and determining the reproduction cost of the distribution system to be as of January 1, 1913, the sum of \$614,493.00.

## XXIV.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling Plaintiff's Exception Number 72 to the Master's report as follows:

"That the Master in said report stated and certified that the Depreciated Value or Present Worth of the Distribution System is the sum of \$351,-624.00, whereas the Master ought to have found, stated and certified that the Depreciated Value or Present Worth of the Distribution System is not less than \$513,829.00."

## XXV.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in not finding and determining the present value of the distribution system of the plaintiff to be as of January 1, 1913, the sum of \$513,829.00.

## XXVI.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling Plaintiff's Exception Number 74 to the Master's report as follows:

"That the Master in said report stated and certified that the Going Value is the sum of \$140,000.00, whereas the Master ought to have found, stated and certified the Going Value is not less than \$225,000.00."

## XXVII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in not finding and determining the going value of the property of the plaintiff as of January 1, 1913, to be the sum of \$225,000.00.

## XXVIII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling Plaintiff's Exception Number 76 to the Master's report as follows:

"That the Master in said report stated and certified that the company should not have expended for the promotion of new business in the year 1912 more than \$12,000, whereas the Master ought to have found, stated and certified that the company, as shown by the record, did expend \$19,692, and that said expenditure was fully justified and a proper charge to operating expenses."

## XXIX.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling Plaintiff's Exception Number 77 to the Master's report, as follows:

"That the Master in said report stated and certified that an allowance of \$12,000 ought to be made for depreciation in addition to what appears on the company's records, as operating expenses, whereas the Master ought to have found, stated and certified that such allowance ought to be made in a sum not less than \$20,865.00."

## XXX.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling Plaintiff's Exception Number 78 to the Master's report, as follows:

"That the Master in said report stated and certified that the salary of \$3,000, paid to the president of the Board of Directors, should be dissolved and deducted from the operating expenses of the company, whereas the Master ought to have found, stated and certified that the amount of said salary charged to the operating expenses in controversy was \$2,400, and that such salary was justified and reasonable, as shown by the record, and a proper charge to the operating expenses of the company."

## XXXI.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling Plaintiff's Exception Number 79 to the Master's report, as follows:

"That the Master in said report stated and certified that the salary of \$600 paid to the company's legal representative in New York was not a necessary or prudent expenditure and ought not to be allowed, whereas the Master ought to have found, stated and certified that the amount of said salary charged to the operating expenses, in controversy, as shown by the record, was in fact \$480; that it was a necessary and reasonable expenditure and a proper charge against the operating expenses of the company."

## XXXII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling Plaintiff's Exception Number 80 to the Master's report, as follows:

"That the Master in said report stated and certified that in 1912, 73% of all plaintiff's customers were in the gas department and 27% in the electric department, whereas the Master ought to have found, stated and certified that as shown by the record, 1902 to 1912 inclusive, the average of all customers was 79% in the gas department and 21% in the electric department."

## XXXIII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling Plaintiff's Exception Number 81 to the Master's report, as follows:

"That the Master in said report stated and certified that a division of common expenses for the

year 1912 on the basis of 73% and 27%, requires a deduction from the operating expenses chargeable to the gas department of \$3,3000, whereas the Master ought to have found, stated and certified that such readjustment, if it ought to be made, would require a deduction of not more than \$460.71."

#### XXXIV.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling Plaintiff's Exception Number 82 to the Master's report, as follows:

"That the Master in said report stated and certified that the legitimate operating expenses for the year 1912, taking into account \$8,195.00 occupation tax, were \$182,015.00, whereas the Master ought to have found, stated and certified that the legitimate operating expenses, including the assumed occupation tax, would in fact be \$205,472.13, as shown by the record."

#### XXXV.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling Plaintiff's Exception 83 to the Master's report as follows:

"That the Master in said report stated and certified that the net income for 1912, with gas at \$1.20 per M cubic feet, to be \$91,161, whereas the Master ought to have found, stated and certified the net income, considering assumed occupation tax, to be \$67,703.80, as shown by the record."

#### XXXVI.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling Plaintiff's Exception Number 84 to the Master's report, as follows:

"That the Master in said report stated and certified the expense for 1912, with gas at \$1.00 per M cubic feet, and including occupation tax, would have been \$180,639, and the net income \$46,658, whereas the Master ought to have found, stated and certified that with gas at \$1.00 per thousand cubic feet and including occupation tax as shown by the record, the operating expenses would have been \$204,078.97, and the net income \$23,637.56."

## XXXVII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in not finding and determining that the net income for 1912 with gas at \$1.00 M cubic feet in the City of Lincoln would have been \$23,637.56.

## XXXVIII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's exception number 85 to the Master's report, as follows:

"That the Master in said report stated and certified that the net income with gas at \$1.00 per M cubic feet would be 66.9% on \$676,565, whereas the Master ought to have found, stated and certified that the net income for the year 1912 would be 3.5% on \$676,565.00 and only 2.17% on the actual value of the company's property used or useful in the gas business in the City of Lincoln, January 1, 1913."

## XXXIX.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in not finding and determining and so decreeing that the net income for the year 1912 with gas at \$1.00 per M. cubic feet in the City of Lincoln would have been 3.5% on the valuation assumed by the Special Master, and 2.17%

on the actual or present value of the plaintiff's property, used and useful in the gas business in the City of Lincoln, January 1, 1913.

## XL.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's exception number 86 to the Master's report, as follows:

"That the Master in said report stated and certified the total value of the company's property used or useful in the gas business in the City of Lincoln, January 1st, 1913, to be \$676,565.00, whereas the Master ought to have found, stated and certified such value to be not less than \$1,090,913.00 as shown by the record."

## XLI.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in not finding and determining that the total present value of the plaintiff's property used and useful in the gas business in the City of Lincoln, January 1st, 1913, to be the sum of \$1,090,913.00.

## XLII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's exceptions number 88 to the Master's report, as follows:

"That the Master in said report stated and certified that \$10,000.00 is a sufficient allowance for depreciation for the year 1907, whereas the Master ought to have found, stated and certified that \$14,955.00 was the necessary and reasonable allowance to charge for depreciation, as shown by the records."

## XLIII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in not finding and determining that the necessary and reasonable allowance for depreciation for the year 1907 of the plaintiff's property was the sum of \$14,955.00.

## XLIV.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's exception number 90 to the Master's report, as follows:

"That the Master in said report stated and certified that with gas at \$1.00 for the year 1907 the net income would have been \$22,349.00, whereas the Master ought to have found, stated and certified that under the conditions named the net income for the year 1907—have been \$18,129.24."

## XLV.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's exception number 91 to the Master's report, as follows:

"That the Master in said report stated and certified that on his assumption of net income and on his erroneous assumption of value for the year 1907 the net income was 5.12% on the value of the plaintiff's investment in 1907. Whereas the Master ought to have found, stated and certified that the net income for the year 1907 was in fact as shown by the records only 2.31% on the value of the plaintiff's investment in 1907."

## XLVI.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's exception number 95 to the Master's report, as follows:

"That the Master in said report stated and certified that the question of whether the franchise is perpetual or temporary is not material in this case and that the said franchise, however valuable it might be, could in no way affect the rate, which the public service corporations may charge its customers, whereas the Master ought to have found, stated and certified that the question did materially affect the case and the rate of return, as well as its value and the rates, which the corporation might charge, as shown by the record."

XLVII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's exception number 96 to the Master's report, as follows:

"That the Master in said report stated and certified that the bonded debt of the company far exceeds the value of its assets, whereas the Master ought to have found, stated and certified that the value of the company's assets is much greater than its bonded indebtedness."

XLVIII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's exception number 100 to the Master's report, as follows:

"That the Master in said report stated and certified that he cannot believe that a rate not lower than 6% upon their invested capital could be regarded as confiscatory, whereas the Master ought to have found, stated and certified that any rate under 8% was less than usually expected in business of this character in this locality, that any rate less than 8% is considered as being non-compensatory, and therefore to the extent that it is short of said 8% it is confiscatory."

## XLVIX.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's exception number 101 to the Master's report, as follows:

"That the Master in said report stated and certified that there is evidence in the record indicating that plaintiff regards investments in the stock of these corporations as especially desirable, whereas the Master ought to have found, stated and certified that the record shows that the plaintiff company, on the contrary, regards its investment in this locality, as being an extremely hazardous one under the existing conditions and that its stock is considered of little value in the market."

## L.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's exception number 102 to the Master's report, as follows:

"That the Master in said report stated and certified that all human experience has shown that increased consumption follows quickly a reduction in the price of commodities, whereas the Master ought to have found, stated and certified, as shown by the record, that because of strenuous competition of electric and other companies the demand for gas is gradually decreasing and it has only been possible for the company to make increases in the sales of gas by the expenditure of extraordinary efforts in the establishment of a new business department at large expense during the last twelve years, and that notwithstanding these extraordinary efforts, the company's output for the year 1913, shows an appreciable decrease, as compared for the year 1912."

## LI.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's exception number 103 to the Master's report, as follows:

"That the Master in said report stated and certified that with gas selling at \$1.00 per M cubic feet, the plaintiff would have received since December 1, 1907, not less than 6% per annum upon the value of the property employed by it in serving the people of Lincoln, whereas the Master ought to have found, stated and certified that with gas selling at \$1.00 per M. cubic feet and with the tax ordinance enforced, the company would have received on the value of its property employed in serving the people of Lincoln for the year 1907, only 2.31% for the year 1908, only 4.44%; for the year 1909, only 4.96%; for the year 1910, only 3.95%; for the year 1911, only 3.51%; for the year 1912, not more than 2.17%; and for the year 1913, not more than 1.04%."

## LII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's exceptions 104, 105, and 106, wherein plaintiff excepted to the failure of the Special Master to find the reproduction cost, the assumed life and age, and the amount and rate of depreciation on each of the 73 items of Works Equipment.

## LIII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's exceptions numbers 107, 108 and 109, and each thereof, wherein plaintiff excepted to the failure of the Special Master to find and certify the present value of each of the groups of items of property in the

Distribution System, and find and certify the age and assumed life for each of said groups of property, and find and certify the amount and rate of depreciation on each of said groups of property.

LIV.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's exception number 110 to the Special Master's report, wherein plaintiff excepted to the failure of the Special Master to find and certify the operating expenses, revenues and net incomes for the year 1913.

LV.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's exception number 111 to the Special Master's report, wherein plaintiff excepted to the Special Master's failure to find and certify the reproduction cost and present value of the property of the company for 1913.

LVI.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's exception number 112 to the Special Master's report, wherein plaintiff excepted to the failure of the Special Master to find and certify the reproduction cost and present value of the property of the company for the years 1908, 1909, 1910 and 1911.

LVII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's exception number 113 to the Special Master's report, wherein plaintiff excepted to the failure of the Special Master to find and certify the rate and

amount of depreciation for each of the years 1908, 1909, 1910, 1911 and 1913.

LVIII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's exception number 114 to the Special Master's report, as follow:

"That the Master failed to find and certify the amount of organization and legal expenses and other costs preliminary to construction shown in the evidence in the amount of \$33,000.00."

LIX.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's exception number 115 to the Special Master's report, as follows:

"That the Master failed to find and certify the reproduction cost and present value of paving over mains and services."

LX.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's exception number 116 to the Special Master's report, as follows:

"That the Master failed to find and certify a summary of the evidence on the values of the company's property, its operating expenses, net income and rate of return."

LXI.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's exception number 117 to the Special Master's report, as follows:

"That the Master failed to find and certify the incompetency of the testimony of A. D. Adams offered on behalf of the City on questions of value of the company's property and on operating expenses and results."

LXII.


That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's exception number 118 to the Special Master's report, as follows:

"That the Master failed to find and certify as to the franchise rights of the company involved in the issues necessary to be determined in valuing the company's property and in determining the operating expenses of the company and in determining the amount of depreciation, and failed to find and certify that the company had a perpetual franchise."

LXIII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's exception number 119 to the Master's report as follows:

"That the Master in said report stated and certified that he had reached the conclusion that the ordinance in controversy has been at all times enforceable according to its terms and that the injunction heretofore granted restraining its enforcement should be vacated and complainant's bill dismissed, whereas the Master ought to have found, stated and certified that said ordinance was not enforceable and its enforcement would have denied to the company just compensation and would have resulted in confiscation of the property of the company if enforced in the years 1907, 1908, 1909, 1910, 1911, 1912 and 1913, and for each of said years, and that the injunction heretofore granted restraining the enforcement of said ordinance should be continued in force and made permanent."



## LXIV.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's additional exception number 1 to the report of the Special Master, as follows:

"That the Master failed to find and certify to the extent of the application of the revenue of the years 1907, '8, '9, '10, '11, '12 and '13, each separately, to reconstruction or replacements as distinguished from current repairs and operating expenses, and that the Master failed to find and certify the amount of past expenditures for reconstruction or replacement and past operating expenses, including current repairs for each of the years 1907, '8, '9, '10, '11, '12 and '13, and failed to find and certify how the gross receipts for the company for 1907-'13, inclusive, for each of the said years had been expended, and failed to find and certify the amount to be set aside for the year 1913 and thereafter for depreciation, and failed to find and certify the character and probable life of the property of the company and the methods adopted in the past to preserve the properties, and failed to find and certify on questions of value, operating expense, net returns, rate of return, depreciation and franchise rights of the company, being questions raised by the complainant, supported by proofs, all of which the Master was directed by the Supreme Court of the United States to fully report upon by order of the said Court in the case."

## LXV.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's additional exception number 7 to the report of the Special Master, as follows:

"The complainant excepts to the conclusions of the Master that deductions should be made from the value of the services in the distribution system.

on account of advancement made by consumers, and excepts to the failure of the Master to find and certify the reproduction cost and present value of the paving over mains and services for each of the years 1907 to 1913, inclusive."

#### LXVI.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's additional exception number 5 to the report of the Special Master, as follows:

"That the Master failed to find and certify as to the competency, materiality and relevancy of the testimony offered as to the Massachusetts and other companies offered on behalf of the complainant and failed to indicate whether such testimony bearing on the results of such companies was taken into account and given due consideration on the part of the Master in reaching the conclusions submitted; and failed to find and certify whether the increased cost and the amount thereof in the manufacture of gas by complainant, on account of the pressure ordinance and quality ordinance was taken into account and given consideration on the part of the Master in reaching conclusions submitted."

#### LXVII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's additional exception number 6 to the report of the Special Master as follows:

"Complainant excepts to the conclusions submitted without a summary of the evidence being submitted therewith, and excepts to the final conclusions submitted by the Master, in view of the finding of the Master to the effect that (summarization of this evidence is quite impossible and would so far as I can see aid neither court nor counsel in testing the correctness of the conclusions I have reached) and as a result thereof the complainant

is denied the benefit of the testimony offered and means of testing the correctness of the Master's conclusions, by the evidence considered by the Master."

LXVIII.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling plaintiff's application to recommit the case to the Special Master for additional findings.

LXIX.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in not decreeing that the ordinance set out in the complaint imposing an occupation tax on gas companies in the city of Lincoln to be a violation of Section 1 of Article XIV of Amendments to the Constitution of the United States in that by its enforcement the plaintiff would be denied the equal protection of the laws.

LXX.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in not permanently enjoining the enforcement of the ordinance of the City of Lincoln, imposing an occupation tax on gas companies in the City of Lincoln.

LXXI.

That the District Court of the United States for the District of Nebraska, Lincoln Division, erred in overruling exception No. 94 to the Master's report as follows:

"That the Master in said report stated and certified that the occupation tax ordinance is valid, whereas the Master ought to have stated, found and certified that said ordinance, if enforced, would operate to confiscate the plaintiff's property, as shown by the records and should therefore and for other reasons be declared invalid and discriminatory."

## I.

**The repeated and persistent attacks of the City on the company, reducing and depleting its revenues, running through a course of years, is to be considered in determining when, if ever, the company will be able to reconp losses already sustained in its revenues.**

The evidence shows that in 1904 the Company became the scapegoat of political strife in Lincoln, and the city authorities instituted a campaign of aggression against the Company, which ultimately compelled the Company to resort to the Courts in order to preserve its properties and franchises.

As a result of the agitation and threatened action on the part of the City, in 1904 the Company reduced its gas rate to \$1.20 per M cubic feet (Transcript, p. 187). The condition of the company at that time is shown by the testimony of its manager, Mr. Homer Honeywell, who testified as follows (Transcript, p. 149):

"We were behind about \$40,000 on our bills and taxes at that time (1904) and for some time prior we had been unable to maintain the plant and meet the interest on the bonded indebtedness and that was the emergency that required the contribution of \$100,000 from stockholders. We were in dire distress for money and we couldn't borrow it."

In order to recover the losses sustained in its revenues by that 1904 reduction, the Company established a new-business department and made a thorough and energetic canvass of the city for the purpose of holding present and getting additional business, and from that time on down to the time the evidence closed in this case before the Master, a new-business department was maintained at a great expense to the Company, for the purpose of holding and pushing the Company's business

and extending it as rapidly and as far as possible. Mr. Honeywell, the manager of the Company, testified in 1907 as follows (Transcript, p. 154) :

"In 1904 we started out with a new-business department with six solicitors and with a man at the head and a clerk. They made a house to house canvass to ascertain what the consumers had on the premises, what they used, why they didn't use something else, and trying to get in additional equipment. They went to every house in the town and kept a card record of it. The town was divided into territory or districts and each man knew how many people used only a range or light or both. We maintained a school and educated our solicitors and got reports from them daily and there was considerable expense involved in that."

That this campaign for new business was as successful as could have been expected, is shown by Exhibit 425, Subdivision S (Transcript, p. 1388), which indicates that the Lincoln Gas Company had 78.1 consumers per mile of main in 1912, and sold 5.095 M cubic feet of gas per capita; and in comparison with twenty cities in the State of Massachusetts this record of gas sales shows the highest number, with the exception of one, of consumers per mile of main (Transcript, p. 1388). The extent to which the work of the new-business department had been pushed in comparison with other cities, showed that there was no further development possible to be expected, beyond the increase which would come from the natural growth of the city; and the natural growth of the City of Lincoln, as shown by the Federal census (Transcript, p. 1617) was only an increase from 40,000 in 1900 to 44,000 in 1910; in other words, 4,000 in ten years. This work of the new-business department was a determined effort on the part of the Company to recoup its losses resulting from the reduction of rate in 1904.

Before the Company had recovered from these losses due to the 1904 reduction, the City, in April, 1906, some months prior to the passage of the Rate Ordinance, passed what was known as a Quality and Pressure Ordinance, which called for a high quality of gas, both in heating and lighting power, to wit, 18 candle power and 625 B. T. U.'s (Transcript, pp. 1746, 128). The record shows that this quality requirement is an exceptionally high standard, both for light and heat (Transcript, p. 128). The Wisconsin Commission has said (In Re Standard for Gas and Electric Service, 2 W. R. C. C., (48), "to require companies to maintain a double standard which shall insure both the high heating value and a high candle-power, would surround them with such restrictions that economy in manufacturing might not be attained." The cost of manufacturing gas in 1906 discloses the fact that the cost of gas in the holder was materially increased, to wit, approximately 10c. per M cubic feet of gas (Exhibit 425, Subdivision L; Transcript, p. 1382).

In November, 1906, the City passed the Rate Ordinance in controversy, reducing the price of gas 20c. per M cubic feet, to be effective December 1, 1906. The evidence shows that prior to the passage of this Rate Ordinance, the company made a determined effort to have the City Council investigate its books, records and the details of its business, in order to demonstrate the cost of manufacture and distribution of gas in the City of Lincoln. Mr. Honeywell, on this point, testified (Transcript, p. 136):

"Previous to the final passage and taking effect of the ordinance in controversy in this suit, the Lincoln Gas & Electric Light Company offered to exhibit its books of account to a committee appointed by the City Council, in order to prove to them that we could not supply dollar gas. That was done in

open Council meeting in my presence. We also asked them to suspend the rate until we could complete our investigation. They refused to do that, and they acted on it abruptly. I do not remember that any motion was made in the City Council. The suggestion of the company, as I recall, was received by silence. The City did not, before the passage of this ordinance, examine into, or have examined into, the details of the company's business to ascertain what was the cost of manufacture and distribution of gas in the City of Lincoln, and they did not go over the properties of the company or its books to ascertain what the cost of manufacture and distribution of gas was, and they did not ascertain the capital necessarily employed in the conduct of the business. I was present, I think, at all the meetings at which the ordinance in controversy here was introduced, read and considered. I was a pretty regular attendant those days, and I heard the expressions made by the Councilmen on the floor of the council chamber in respect to the gas company's inability to reduce the rate to a dollar, and I heard the expressions of the members of the Council of the effect of the adoption of such a rate on the solvency of the company. Mr. John S. Bishop said the only way that they would ever get the water out of the stock or bonds of the company was to put it into the hands of a Receiver, and he in his humble way would do all he could to bring that about."

On December 10, 1906, the City passed an ordinance levying an occupation tax of two and one-half per cent. on the gross receipts of the gas company (Transcript, p. 1751), which would result in a further reduction of the company's revenues, and at the dollar rate would, in fact, require the company to furnish gas for 97½c. per M cubic feet.

During the progress of all these acts of aggression, the City had taken the position that the Company's franchise, which the Company claimed was a perpetual

one, had expired, and that the Company had no further right or license to use the streets of the City of Lincoln for the purpose of distributing gas, and that its pipes and equipment were there solely at the sufferance of the City, and were subject to ejectment at any time by the City. A claim to a perpetual franchise was set forth in the Company's petition in this case (Transcript, p. 3), but it is expressly denied in the City's answer, which states that the Company's franchise was terminated, that the right to use the streets of the City is by sufferance only, and subject at any time to cancellation by the City (Transcript, pp. 21, 22). This answer of the City was filed May 13, 1907.

Furthermore, the City of Lincoln actually instituted a suit, in April, 1908, in the State Courts of Nebraska, asking for a writ of ouster ejecting the Company from the streets of the City (Exhibit 56; Transcript, p. 1758), which suit is now pending, and is being pressed for trial by the City (Transcript, p. 793). As to the City's attitude in this franchise suit, Mr. Morning, who was an influential member of the Municipal Ownership League, and special counsel for the City in this case, testified with respect to the franchise suit as follows (Transcript, pp. 824-5):

"I do not think the suit to forfeit the franchise right is being prosecuted to compel the company to submit to a reduction of its rates. It was an effort to clear the books and *put the City in a position to negotiate with the company.*"

In addition to the foregoing, a league was formed in the City of Lincoln, called the "Municipal Ownership League," which was openly advocating municipal ownership of public utilities, including gas works, and was in this connection advocating the building of a gas plant by the City, to be operated in competition with the Company (Transcript, p. 825).

The City had actually established a municipal electric plant, which was competing with the Company in the lighting business (Transcript, pp. 825, 788), and this competition was further aggravated by the fact that the Lincoln Traction Company was also generating and selling electricity in competition with the company in the lighting business (Transcript, p. 788).

This Municipal Ownership League caused a bill to be presented to the Legislature of the State of Nebraska, authorizing the City of Lincoln to construct, maintain and operate a gas plant. An amendment to this bill, which was introduced to the effect that before the City should construct a new plant it would buy any existing plant by condemnation, at a fair valuation, was decisively defeated through the efforts of the Municipal Ownership League (Transcript, p. 824). The real meaning of this legislation is clear, in spite of Mr. Morning's denial that he "did not undertake to get this bill through for the purpose of compelling the Company to make a settlement with the City regardless of the justice of its terms" (Transcript, p. 824).

On March 16, 1908, the City passed an Occupation Tax Ordinance, assessing and levying an occupation tax of two per cent. on the gross receipts resulting from the sale of electricity for light, heat or power purposes in the City of Lincoln (Transcript, p. 1773). In this connection, the testimony of Mr. Frank W. Frueauff, to the effect that the electric department of the company was only earning one per cent. at that time, shows the drastic character of this Tax Ordinance (Transcript, p. 788).

On December 13, 1909, the City passed another ordinance levying an occupation tax of three per cent. on the gross receipts resulting from the sale of gas or electricity for light, heat or power purposes in the City of

Lincoln (Transcript, p. 1767), which repealed the two previous Tax Ordinances, but increased the burdens of taxation.

While all these things were going on, the company's general taxes were increased from \$2,112 in 1905, to \$6,690 in 1906, and to \$15,260 in 1912 (Exhibit 425, Subdivision P; Transcript, p. 1386). The valuation of its properties was increased from \$663,400 in 1906 to \$1,184,250 in 1910 (Transcript, pp. 1861 and 1889).

We submit that it is perfectly evident from this series of acts of hostility and oppression on behalf of the City, that the City was engaged in a deliberate attempt to push the Lincoln Gas Company to the wall, for the purpose of compelling it to surrender its franchise and properties, in the interest of a municipal plant.

In this connection, we beg to call the attention of this Court to the pertinent language used by Mr. Justice Moody, in the case of Knoxville Water Company, 212 U. S. 1, where he said:

"Our social system rests largely upon the sanctity of private property, and that state or community which seeks to invade it will soon discover the error in the disaster which follows. A slight gain to the consumer which he would obtain from a reduction in the rates charged by a public service corporation is as nothing compared with his share in the ruin which would be brought about by denying the private property its just reward, thus in settling values and destroying confidence."

Some of the conditions described above existed at the time of the former hearing of the appeal in this case, which called forth the remark from Mr. Justice Holmes that "the City was putting the screws on the Company."

We have set forth all these facts and conditions at

the outset of this brief, in order that the Court may understand the atmosphere surrounding the Company's operation and business in the City of Lincoln, and also because we submit that they bear directly upon the attitude of the City in the issues in this case.

## II.

### **Rate of Return.**

In respect of the rate of return, which the Master decided was a reasonable return on an investment of this class in the City of Lincoln, the Master said:

"A considerable number of witnesses testified with respect to the return upon capital invested in banking, merchandising and other businesses in the City of Lincoln, and from their testimony, I find that 8 per cent. is the lowest rate sought and generally obtained in such businesses. There is, however, in all these lines free competition and hazards from which a utility corporation is exempt. Banks fail; merchants go to the wall, but if any honestly capitalized and conducted gas, water or electric company having a monopoly of the business in the community which it serves has become bankrupt, the fact has escaped my notice. The profits of such corporation may not be large, but they are virtually guaranteed profits, and I cannot believe that a rate not lower than 6 per cent. upon their invested capital could be regarded as confiscatory. There is evidence in the record indicating that plaintiff regards investments in the stock of these corporations as especially desirable." (Transcript, pp. 54 and 55.)

What is a fair rate of return upon a certain class of investment in a given locality is to be determined by all of the circumstances surrounding each particular case. It is obvious that such should be the rule, and the principle was clearly stated by Mr. Justice Peckham

in *Willcox v. Consolidated Gas Co.*, 212 U. S., 19, where he said, in part:

"There is no particular rate of compensation which must in all cases and in all parts of the country be regarded as sufficient for capital invested in business enterprises. Such compensation must depend greatly upon circumstances and localities; among other things, the amount of risk in the business is a most important factor, as well as the locality where the business is conducted and the rate expected and usually realized there upon investments of a somewhat similar nature with regard to the risk attending them. There may be other matters which in some cases might also be properly taken into account in determining the rate which an investor might properly expect or hope to receive and which he would be entitled to without legislative interference. The less risk, the less right to any unusual returns upon the investments. One who invests his money in a business of a somewhat hazardous character is very properly held to have the right to a larger return without legislative interference, than can be obtained from an investment in Government bonds or other perfectly safe security" \* \* \* (48-49).

Referring to an investment in a gas company in New York City, he said:

"In an investment in a gas company, such as complainant's, the risk is reduced almost to a minimum. It is a corporation, which in fact, as the Court below remarks, monopolizes the gas service of the largest city in America, and is secure against competition under the circumstances in which it is placed, because it is a proposition almost unthinkable that the City of New York would, for purposes of making competition, permit the streets of the City to be again torn up in order to allow the mains of another company to be laid all through them to supply gas which the present company can adequately supply. \* \* \* An interest in

such a business is as near a safe and secure investment as can be imagined with regard to any private manufacturing business, although it is recognized at the same time that there is a possible element of risk, even in such a business." (49)

*In Re Queens Borough Gas & Electric Company*, 2 P. S. C., 1st D., N. Y., decided June 23, 1911, it was said:

"Various standards have been suggested for determining the fair rate of return. The one which in our opinion is properly applicable to this case is that the rate should be such that investors would be induced to provide the funds with which to construct and extend a gas and an electric plant within the area in question. If the state were to fix a rate below this standard, capital could not be secured. If investments were made before the state acted, the original capital might be forced to remain, but additional capital could not be secured unless necessary to protect the first outlay."

In conformity with this doctrine, it will be necessary, in order to determine the proper rate of return on the Company's investment, to look to the locality in which the company is operating, and the risks which there occur.

From an examination of these facts, we submit that the finding of the Master that a return of six per cent. would not be confiscatory, is absolutely without justification.

The City of Lincoln, the capital of the State of Nebraska, is strictly a residential city, with no field for industrial gas sales (Transcript, pp. 469-70, 1357). The market for gas in Lincoln is, therefore, limited to sales for domestic lighting and cooking purposes (Transcript, p. 1375). Furthermore, within the past 11 years electricity for lighting purposes has begun to replace gas (Transcript, p. 668, 469), and, in fact, it ap-

pears from the record (Transcript, p. 667) that many of the newer houses being built in Lincoln are not even being piped for gas lighting purposes. This fact narrows even more closely the field for the sale of gas to cooking ranges. As it was very aptly expressed in one of the prior arguments of this case, gas in Lincoln "was being driven from the parlor to the kitchen."

The population of the City of Lincoln, according to the 1900 Federal Census, was approximately 40,000 (Transcript, p. 1617), and in 1910, according to the Federal Census, it was approximately 44,000, an increase of but 4,000 over a period of ten years.

As far as this Company's operations in Lincoln are concerned, we have already shown in Point I hereof how the Company was actually beset on all sides by influences which tended to hamper its business, reduce its earnings, and increase the hazard of its investment.

It could hardly be said, in view of all the above circumstances, that the position of the Company's investment, even in the City of Lincoln, was a favorable one.

The Company in this case introduced the testimony of ten witnesses, in respect of the rate of return which investments in general, and this investment in particular, should command in the City of Lincoln. Against this proof the city introduced not a single witness. All the Company's witnesses were men of high standing and prominence in the business life of the City of Lincoln, and most of them were familiar with investments of this class. Not one of them would say that a return which was lower than eight per cent. was a fair return, and yet, in view of all this testimony, which was quite unchallenged, the Master determined that a six per cent. rate of return was fair and not confiscatory.

We deem this subject of sufficient importance to set

forth precisely what the various witnesses said in respect of this matter.

Mr. Frank W. Frueauff, a member of the operating firm of Henry L. Doherty & Company of New York, the President of complainant, who has spent his active life in the operation of gas utilities, testified that such utility at Lincoln could not possibly be financed on a more favorable basis under normal conditions than 8 per cent. return on invested capital, and in order to float 8 per cent. securities it was necessary that the company show a net return on invested capital of at least 10 per cent. per annum, in order to maintain the stability of the investments (Transcript, pp. 169, 781-2).

Mr. E. B. Sawyer was a witness for the Company and testified that he was President of the Cushman Motor Works, located at Lincoln, and which manufactures gasoline engines which are sold practically all over the world (Transcript, 580). That the minimum rates required to attract investments in manufacturing lines and enterprises involving risks incident to business in Lincoln is from 15 to 20 per cent. (Transcript, p. 580); testified that he was a member of the City Council in charge of the gas ordinances in 1906, and that he was willing to recede from the dollar rate, but the council was influenced by legal advice that there was an opportunity to maintain the rate upon a contest; "there was a general tendency with the committee to accept some compromise sliding scale agreement, and our legal advice at that time was that the opportunity was open for fighting the case from a legal standpoint" (Transcript, p. 580).

Mr. J. E. Miller, the head of Miller & Paine Company, engaged in the general merchandise business, formerly a director in the City National Bank and now a director in the First National Bank, also a director in the Lincoln Traction Company and interested in the Lincoln Tele-

phone Company, who has resided 34 years in Lincoln, testified that an 8 per cent. average would be a necessary return on investments in gas utilities in Lincoln under normal conditions to attract capital investments and testified that under present conditions of the disputed franchise rights from a refusal to extend franchise and pendency of suit to eject the Company from the streets, there would be presented simply a gambler's proposition which would require a rate of return accordingly (Transcript, p. 585). Mr. Miller testified:

"I large amount of capital would not be invested under those conditions, under any terms. People having money to invest would not invest. Small amounts might be secured on a speculative proposition. Gamblers might be interested, but investors would not put any money into it at all" (Transcript, p. 585).

Mr. Frank H. Woods, President of the Lincoln Telephone & Telegraph Company with assets of \$6,000,000, part owner of a Silo Manufacturing Company located at Lincoln, with a capital of one-half million dollars, and a stockholder in many industrial corporations, as well as a director of the First National Bank of Lincoln and a stockholder in other Lincoln banks, testified that a fair rate of return for investments in gas utilities in Lincoln is from 8 to 10 per cent. under normal conditions and that existing difficulties would probably prevent obtaining funds for that utility upon any basis (Transcript, p. 579). Mr. Woods testified:

"I think the hazard would be prohibitive. I do not think you could get any money for investments under those circumstances, except from people who were already in and who would have to put in more to save their investments" (Transcript, p. 579).

Mr. P. L. Hall, President of the Central National Bank

of Lincoln, and prior thereto cashier of the Columbia National Bank, and for 29 years engaged in the banking business in Lincoln, testified that bank stock ought to be earning at least 8 per cent. (Transcript, p. 581) and that general manufacturing and commercial enterprises should pay 8 per cent. in order to attract capital investment, and testified that he could not state a rate necessary to attract capital as an investment in the gas property with its franchise rights involved in litigation by the City; that it would be a speculation and not an investment (Transcript, pp. 581-2).

Mr. J. D. Lau, wholesale grocer in Lincoln and general manager of the H. P. Lau Company, one of the large distributing houses, supplying western territory, testified that jobbers in that line would expect from 10 to 12 per cent. on their money in Lincoln (Transcript, p. 581).

Mr. Silas H. Burnham, the well-known president of the First National Bank of Lincoln, whose average deposits are four million dollars and who has a banking experience in Lincoln extending over twenty years, testified that for an investment in property such as the Lincoln Gas Company, under normal conditions, and during the period following 1906, to the present time he would require a rate of return of from 10 to 15 per cent. in order to induce him to invest, and would prefer farm mortgages at 6 or 7 per cent. to gas investments at the high rate named. In the present attitude of the City toward the company, he knew of no rate that would be adequate to induce investments in the Lincoln Gas property (Transcript, pp. 587-8).

Mr. C. B. Towle, for ten years an active officer in the Curtis, Towle & Paine Company at Lincoln, doing a business of about a million dollars a year in the manufacture and sale of sash and doors and other millwork, testified that the fair return on investments involving

risk of the business in the City of Lincoln is in the neighborhood of 15 per cent. and that an actual rate of return of from 10 to 12 per cent. in an old established business was necessary to attract capital to enterprises like those in which he was engaged (Transcript, p. 580).

Mr. C. H. Beaumont, cashier of the Nebraska State Bank of Lincoln, and an officer in other banks in the State, and who was for six years State Bank Examiner, testified that it required a rate of return of from 10 to 15 per cent. to attract capital for investments in manufacturing or other business enterprises in Lincoln and that for the gas company under normal conditions it would be about 10 per cent. (Transcript, p. 584). Mr. Beaumont testified with respect to the matter of getting capital under present conditions:

"The fact that the City is prosecuting a suit to put the gas company out of the streets, and there is a question as to its franchise, and that the Legislature has authorized the City to establish and operate a gas plant without any provision for taking over the property of the company, I think would make it hard to interest capital at all in this enterprise. It would make it practically prohibitive" (Transcript, p. 584).

Mr. M. W. Folsom, president of the Nebraska State Bank of Lincoln and secretary of Nebraska Central Building & Loan Association of Lincoln, testified that it would be necessary to show a rate of return of at least 8 per cent. for capital for gas utilities in Lincoln under normal conditions (Transcript, p. 576), and testified that under present conditions money could not be attracted for the enterprise at any rate of interest. Mr. Folsom testified:

"Where the question of the right of the company to be on the streets and the right to use the property is involved in a law-suit brought by the City and where the people have voted to refuse to quiet the

right of the company in the streets, and where the Legislature has authorized the City to engage in the manufacture and selling of gas—under those conditions you could not attract capital at all. Anyone looking for an investment would look elsewhere. You might be able to find those who like to speculate and they might pay something, but an investor looking for an investment would not be attracted” (Transcript, p. 576).

Homer Honeywell, the manager of the Company, in speaking of the market value of the Company's securities, which is an exact estimate of the attitude of investors toward the business and affairs of the Lincoln Company, said (Transcript, p. 133) :

“There has been no time in the past three years when the 7% notes of the company would command par at the market, and there has been no time during my administration when the 5% bonds of the company would command par, or any figure within 20% of par. That is the reason that we issued the notes at the present time. We thought the notes would go better than the bonds. Nobody wanted the bonds. We are offering a collateral, par value of \$200,000, in order to get a \$100,000 loan, and our 7% notes with 2% commission are going begging at that offer.”

In addition to all this testimony, it appears from the record (Transcript, p. 1711) that the Nebraska State Railway Commission, on application of the Company, in July, 1911, issued an order authorizing the Company to issue and sell \$500,000 principal amount of its three-year six per cent. notes, at a price equal to 96% of the principal thereof, plus accrued interest. The rate of interest to the investor upon said notes was, therefore, equivalent to 7.6%. The statutes of Nebraska vest the Railway Commission with power to pass upon applications of public utility companies to issue stocks, bonds and obligations running for a period longer than one

year, and in the exercise of that power the Commission is vested with authority and is required to examine into the affairs of the company to fix and determine the extent of the securities prescribed, the rate of interest, and the conditions and terms under which such securities may be issued. The public utility companies are required to proceed in these matters under the direction of the Commission. The orders of the Commission are binding upon the public utility company, and are alike binding upon the Courts. In this case the minimum rate of return on the \$500,000 principal amount of the Company's notes has been fixed and determined by the Commission, acting pursuant to the power vested in it by law, and the rate of return so fixed on said notes was 7.6%.

The legal rate of interest in the State of Nebraska is seven per cent.

In view of this overwhelming weight of evidence, opposed to which was not one word of testimony, we confess we are at a loss to understand the justification for the Master's finding that a six per cent. rate of return was fair and not confiscatory, nor the reason for his finding being confirmed by the court below. This Company, involved as it was in a bitter political struggle in the City of Lincoln, beset on all sides by competition, and threatened with expulsion from the streets of the City of Lincoln, is put by the Master and the court below upon the same basis as the Consolidated Gas Company, which does business under a perpetual franchise in New York City, about which Mr. Justice Peckham said:

"It is a corporation, which in fact, as the court below remarks, monopolizes the gas service of the largest city in America, and is secure against competition under the circumstances in which it is placed, because it is a proposition almost unthink-

able that the City of New York would, for purposes of making competition, permit the streets of the City to be again torn up in order to allow the mains of another company to be laid all through them to supply gas which the present company can adequately supply" (p. 49).

Without discussing the authorities on rate of return at any length, we think it advisable to briefly state some of the rates which were approved in cases involving public utilities in various parts of the country:

Mayhew <i>v.</i> Kings Co. Lighting Co., 2 P. S. C., First D. N. Y., decided October 30, 1911.....	7½%
Des Moines Water Co. <i>v.</i> City of Des Moines, 192 Fed., 193.....	8 %
City of Havlock <i>v.</i> The Lincoln Traction Co., Nebraska State Ry. Comm. Annual Report, 1911, p. 91.....	8 %
Public Service Gas Co. <i>v.</i> Board of Public Utility Commissioners, 84 N. J. L., 463.....	8 %
Central of Georgia Ry. Co. <i>v.</i> R. R. Comm., 161 Fed., 925 .....	8 %
<i>In re</i> application Public Service Gas Co., Vol. 2, B. T. U. C. (N. J.), Dec. 30, 1913.....	8 %
State Journal Printing Co. <i>v.</i> Madison Gas & Electric Co., 4 U. R. C. R., 501.....	7½%—8 %
Application of Lincoln Telephone & Telegraph Co. for permission to establish temporary rates of service, Nebraska State Ry. Comm. Annual Report, 1913.....	8 %

See also:

Missouri K. & T. Ry Co. *v.* Love, 177 Fed., 493;  
Brunswick & T. Water District *v.* Maine Water  
Co., 99 Me., 371;  
City of Knoxville *v.* Knoxville Water Co., 212  
U. S., 1;  
Hill *v.* Antigo Water Co., 3 U. R. C. R., 533;  
City of Ashland *v.* Ashland Water Co., 4 U. R.  
C. R., 277;

City of Ripon *v.* Ripon L. & W. Co., 5 U. R. C. R., 1;

City of Racine *v.* Racine Gas Light Co., 6 U. R. C. R., 288.

There is one of the Master's remarks in his findings on rate of return which we wish to comment on. He says (Transcript, pp. 54-5):

"There is, however, in all these lines free competition and hazard from which a utility corporation is exempt. Banks fail, merchants go to the wall, but if any honestly capitalized and conducted gas, water or electric company having a monopoly of the business in the community which it serves, has become bankrupt, *the fact has escaped my notice.*"

In view of this remark, we beg to call attention to the experience of the old Lincoln Street Railway Company, whose first mortgage to New York Security & Trust Company, securing \$600,000 of that Company's bonds, was foreclosed in 1903. In connection with that foreclosure, the case of City of Lincoln against Lincoln Street Railway Company, 67 Neb., 469, came before the Supreme Court of the State of Nebraska, in the January term, 1903, while the Master in this case was sitting upon the Supreme Court bench as Chief Justice of said Court. In that case the history of the Street Railway Company in Lincoln was reviewed. The plaintiff in that case (the City of Lincoln) raised the contention "that the mortgage (which had been foreclosed in this Federal Court) was given to secure a fictitious indebtedness." But the Supreme Court of Nebraska held, page 483:

"It appears, however, that the money borrowed upon the mortgage in question was used to pay for some of the constituent properties purchased by the defendant, which became parts of the property

of the consolidated company; that some of it was used for the construction and extension of the several lines of street railway so purchased, and a large part of it was used to electrically equip the whole system; that the amount of money expended for these purposes was about \$900,000, so that no fictitious indebtedness was created by the mortgage in question; and it appears that the Company, in effect, received property, money, or labor for the amount, and to the extent of a much greater sum than the total amount of bonds secured by the mortgage."

And, yet, in the face of this decision rendered by the Court of which the Master himself was Chief Justice, the Master states that a utility company is exempt from hazards, and the fact that any honestly capitalized gas, water or electric company has become bankrupt, has escaped his notice.

### III.

The City of Lincoln, after the passage of the gas rate ordinance in question and the institution of this suit to enjoin its enforcement by the Company, caused to be instituted an action in the State Court to eject the Company from the streets and prevent it from further continuing in business in Lincoln, claiming that the Company's franchise, under which it manufactured and distributed gas in the City, had expired, and that its right to continue in the business had ceased and terminated.

The suit above referred to was instituted on April 11, 1908 (Transcript, p. 1758), and the city, as shown by the record, is insisting upon the trial of the case immediately upon the conclusion of the hearing in

this case. The record shows the following stipulation, with respect to the ejectment suit of the city, entered into during the course of the taking of the testimony before the Master:

"It is stipulated by and between the parties that the City of Lincoln through the City Attorney and his associates has secured an order from the District Court of Lancaster County, Nebraska, setting the case of the State of Nebraska *ex rel.*, Frank M. Tyrrel *v.* The Lincoln Gas & Electric Light Company for trial over the objection of the company immediately after the conclusion of the taking of the evidence before the Master in this hearing and the city is demanding an immediate trial and judgment in that case according to the prayer of its petition" (Transcript, p. 793).

The pendency and prosecution of this suit by the city to eject the Company from the streets and public grounds, is a serious menace, and puts in jeopardy all of the Company's business and property. If the city should be successful, the Company would not be permitted, instead of required, to furnish gas service in the city.

In the petition the Company pleads the Ordinance of 1872, granting its franchise rights, and alleges that the city is now challenging the Company's right to manufacture and distribute gas in the city, claiming that the franchise had expired in 1893. The Company set out its construction of the franchise Ordinance of 1872, and asked in this case that the case that the Court adjudicate and determine whether the franchise had or had not expired. The City answering contends that the Company's franchise rights expired in 1893, and that the Company is now operating its plant in Lincoln at the sufferance only of the city. The answer was filed on May 13, 1907. The suit to eject the Company from

the streets and public grounds, as already indicated, was started on April 11, 1908.

This action on the part of the city is inconsistent with the requirements of the Gas Rate Ordinance in controversy. The position of the City, on the one hand, is that the Company shall be required to furnish gas in the City of Lincoln at a stated rate fixed by the city; and, on the other hand, and at the same time, that the company has no right to furnish gas in the City of Lincoln at all. It is self-evident that if the city forbids the Company to render the service, that it cannot at the same time require the service to be rendered at a given rate. We feel that this situation, with the necessary conclusions which follow from it, call for a reversal of the case sustaining the Ordinance fixing the rate to be charged for the service. The two positions assumed by the city in this respect are so inconsistent that they cannot exist at the same time, and the city, having instituted the ouster suit subsequent to the attempted rate regulation, will be deemed to have elected to pursue that remedy against the Company and to have abandoned its contention that the company should be required to render the service at the rate fixed by the Ordinance in question. If we are correct in this conclusion, it will not be necessary to go further into the case, but should the Court feel that the position of city in this respect is not so inconsistent as to preclude it from pursuing both remedies against the Company at the same time, then we submit that the Court in considering the adequacy of the rate, must take into account the fact that the city is attempting to terminate the rights of the company to use its property further for the manufacture and sale of gas. That fact must necessarily be considered as one of the conditions affecting a fair rate of return, from which there can be no escape.

The evidence shows that subsequent to the passage of the Rate Ordinance in question, the company invested in extensions and betterments to its properties more than \$210,000. The rate of return upon the value of that investment must be sufficient to preserve intact the investment during the time it may be employed in the public service. In all rate cases where this Court has commented upon the adequacy of the rate to yield a fair rate of return, the Court has stated that all the facts and circumstances tending to show what would be an adequate rate under the conditions and in the community where the property was employed, must be considered; in other words, the Court has considered all those facts and circumstances which would influence an investor in considering a proposed investment in the company. The city, by its act, says to the investor: "You are not entitled to earn anything upon this property. The company has no right to use this property in the gas business in the City of Lincoln, and the city proposes to secure the judgment of the Court ousting this company from the streets." In that situation in a controversy with the city as to the adequacy of the rate, what would be a fair rate of return upon the investment? This Court has settled the rule that the rate must be adequate, and that if it is less than adequate it is confiscatory, and to be adequate it must be sufficient to preserve the value of the investment and give to the investor a fair rate of interest on that value, and provide a sufficient fund in addition to take care of all depreciation, resulting from whatever cause, to the property while employed in public service. If the depreciation in the property is caused by an act of the City, it must, nevertheless, be compensated for in the rates to be charged. All elements going to depreciate the property are alike considered in determining the total depreciation, and it is the total deprecia-

tion, plus a fair rate of return upon the value of the investment that is to be preserved to the investor.

The evidence submitted by the Company in this case on the question of what would be a fair rate of return under these conditions, was not controverted by the City, and stands unchallenged to the effect that practically there is no rate sufficient under existing conditions to induce the further investment of capital in the Company's properties. The principal witness for the City testified (Transcript, p. 847):

"To my mind, the value of an engineering structure, like that of most physical things, is made up of two main elements, its utility and its usefulness for some purpose, and the time during which that usefulness can be enjoyed or had. The usefulness is an absolute element in measuring value and the time; one is just as necessary as the other."

The Company on this question called a number of prominent citizens of Lincoln, whose testimony will be found in this record between pages 576 and 588.

Mr. N. W. Folsom, president of the Nebraska State Bank, and secretary of the Nebraska State Building & Loan Association of Lincoln, testified (Transcript, p. 576):

"Under those conditions you could not attract capital at all. Anyone looking for an investment would look elsewhere. You might be able to find those who like to speculate and they might pay something, but an investor looking for an investment would not be attracted."

Mr. Frank H. Woods, president of the Lincoln Telephone & Telegraph Company, testified (Transcript, p. 579):

"I think the hazard would be prohibitive. I do not think you could get any money for investments under those circumstances, except from people who

were already in and who would have to put in more to save their investment."

Mr. C. H. Beaumont, cashier of the Nebraska State Bank, testified (Transcript, p. 584):

"It would make it practically prohibitive. The attack upon the company, both through its franchise and the regulation of rates, jeopardizes the investment and would effect the ability of the company to get money for extensions and betterments."

Mr. J. E. Miller, director of the First National Bank of Lincoln, and the leading merchant of that City, testified (Transcript, p. 585):

"A large amount of capital would not be invested under those conditions under any terms. People having money to invest would not invest. Small amounts might be secured on a speculative proposition. Gamblers might be interested, but investors would not put any money into it at all."

Mr. S. H. Burnham, president of the First National Bank of Lincoln, testified (Transcript, p. 588):

"I do not know of any rate that would be sufficient to induce capital to invest under those conditions."

The Master, in his report and findings, says (Transcript, p. 54) that the question as to whether the Company had a perpetual or temporary franchise is immaterial for the purposes of this case; that the value of the franchise whether perpetual or temporary could not be taken into account.

The Master's reference to the franchise questions in the case were not directed to the point involved. The Company was not asking the Court to determine that it had a perpetual franchise, for the purpose of having

the value of the franchise included in the valuation of its properties. The Company was calling the Master's attention to the fact that the City was contending that the Company had no franchise at all, and that it had no right to occupy the streets or render the service, on the one hand, and, on the other, was contending that the Company should be required to render the service at the rate prescribed by the ordinance in question. The Company was calling the Master's attention to the fact that the City by attacking the right of the Company to occupy the streets and use its property in the manufacture and distribution of gas, imperiled the investments in that property, and made it difficult, if not impossible, for the Company to secure new capital for extensions and betterments, and that if such capital were secured, it would necessarily involve a rate of return commensurate with the hazard involved. The undisputed evidence shows that because of this condition created by the City, the Company is deprived of the ability to get money on an investment basis for extensions and betterments, and as stated by one of the witnesses, this condition rendered it a gambler's chance.

In the Consolidated Gas case, 212 U. S., 19, this Court referred to the security of the investment in that property, and referred to the fact that it was "unthinkable" that the City would permit its streets to be torn up again for a competitor in that business. In this case it is not unthinkable. The City has prepared the way and is attempting to force the result. In New York City, where the Company was secure in its franchise rights, and had for all practical purposes a monopoly in its business, and where the Court could see no possibility of the company being disturbed by a competitor, the Court felt that a six per cent. return on the investment was not confiscatory, noting the fact, however, that the company had made a considerably larger rate

of return for a number of years prior. The City in this case asks that the investment in this Company's properties be considered secure and safe, and as a result asks for a low rate of return, but at the same time is exercising its power to completely destroy the investment and thereby rendering the property practically valueless. The City is in no position to complain of a rate of return sufficient to cover risks and hazards which it has created. If the risk is so great that the property must yield a sufficient return to replace the investment within the short time between the day of judgment of the Court in the case and the day for the return of the execution, the City cannot complain. It is very certain that the City cannot expect cheap gas on a low rate of return in the face of such conditions.

It is the Company's contention, however, that its franchise is perpetual, as set forth in its petition in this suit. The franchise in question was granted by an ordinance passed in March, 1872. Section 1 of the ordinance states that license and permission are hereby given and granted to the company to erect, construct and complete gas works in Lincoln, with authority and permission to use and occupy the streets for the purpose of laying down and repairing pipes and other fixtures. Section 2 of said ordinance states that the Company shall have the exclusive right and privilege of furnishing illuminating gas in the City of Lincoln, for a period of twenty-one years, from March, 1872. It is the company's contention that the grant contained in Section 1 is a perpetual grant to use the streets of Lincoln for the purpose of laying and distributing gas, and that it has been so construed by subsequent acts of both the City and the Company; that Section 2 merely makes that perpetual right an exclusive one for a period of twenty-one years, which period expired in 1893, and was simply an inducement to secure a gas plant

in Lincoln at a time when it was a village of not over a thousand people.

The construction of this franchise by the City and the Company is conclusively shown by the following facts:

First, that in 1890, when the Company was preparing to establish an electric light department in connection with its gas works, the City amended Section 1, extending the franchise right, to include the generation and distribution of electric current (Transcript, pp. 3, 21). This was within three years of the expiration of the exclusive feature of the franchise embodied in Section 2. The amendment was not to Section 2, but to the franchise right granted in Section 1.

Second, that in 1900, seven years after the exclusive feature of the Franchise Ordinance had expired, and at a time when the Company was selling its properties and franchise rights to the Lincoln Gas & Electric Company, the City further amended Section 1 to enable the Company to transfer its properties and franchise, by inserting the words "its successors and assigns" (Transcript, pp. 4, 21). This amendment of the franchise enabled the Company to sell its properties and franchise rights, and that was the purpose of the amendment.

Third, that subsequent to the sale above referred to, the Company put out a bond issue, secured by a mortgage upon all of its properties and franchises, which continues in the original form or in subsequent issues down to this time (Transcript, pp. 146, 208, 210).

Fourth, that the City has continually assessed, for the purpose of taxation, the franchise of this Company, at a valuation of \$60,000 (Transcript, p. 144).

Fifth, that the City has passed numerous ordinances since the expiration of the exclusive feature of the fran-

chise grant, regulating the rate to be charged for the service, and fixing the quality of gas to be furnished, and imposing tax burdens upon the gross receipts resulting from such service.

These acts show the construction placed upon this franchise ordinance by the City, down to the time the City deemed it advisable to use it as a weapon on this Company in this rate litigation.

The practical interpretation of an agreement by a party to it is always a consideration of great weight; and there is no surer way to find out what parties meant than to see what they have done.

Brooklyn Ins. Co. *v.* Dutcher, 95 U. S., 269;  
Philadelphia W. & B. R. Co. *v.* Trimbull, 10  
Wall., 367.

Contemporaneous construction long acquiesced and practical action will be followed in the construction of statutes which are ambiguous or doubtful.

Prigg *v.* Pa., 16 Pet., 539.

In all cases of ambiguity, the contemporaneous construction of statutes is controlling.

Schell *v.* Fauche, 138 U. S., 562.

Furthermore, we deem the franchise rights of the Company are settled by the case of Old Colony Trust Company *v.* Omaha, 230 U. S., 100, in which a similar Ordinance of the City of Omaha was passed upon by this Court.

See also:

New Orleans *v.* Clark, 95 U. S., 644;  
The Binghamton Bridge, 3 Wall., 51;  
New Orleans Gas Co. *v.* Louisiana Light Co.,  
115 U. S., 650.

- New Orleans Water Works Co. *v.* Rivers,  
115 U. S., 674;  
Louisville Gas Co. *v.* Citizens Gas Co., 115 U. S.,  
683;  
Seattle *v.* Columbia & P. S. R. Co., 6 Wash., 379;  
1052;  
Suburban E. L. & P. Co. *v.* East Orange, 41  
Atlantic (N. J.), 865;  
Des Moines City Ry. Co. *v.* City of Des Moines,  
151 Fed., 854;  
Detroit *v.* Detroit Citizens Street R. Co., 184 U.  
S., 368;  
Miner *v.* R. Co., 123 N. Y., 242;  
Nebraska Telephone Co. *v.* Freemont, 72 Neb.,  
25;  
Sharp *v.* South Omaha, 53 Nebraska, 700;  
State *ex rel.* Caldwell *v.* Lincoln Street R. Co.,  
80 Neb., 333;  
Plattsmouth *v.* Nebraska Telephone Co., 80  
Neb., 460;  
State *v.* Citizens S. R. Co., 80 Neb., 357;  
City R. Co. *v.* Citizens Street R. Co., 166 U. S.,  
557.

#### IV.

##### Going Value.

We submit that the principle is well settled that in valuing the property of a public utility, whether for rate making purposes or otherwise, it is proper to add to the estimated value of the physical elements of said property, a certain value which really and actually inheres in the utility by reason of its being a going concern. This doctrine has been universally recognized, for the reason that it is obvious that even after the mere

physical elements of the utility have been completely acquired and constructed, a still further and substantial sum of money must be invested to get business before the utility begins to earn a fair return. So that a utility which has already acquired business, represents more value than the utility which has no business. It is a more valuable than the utility without cutomers, as it actually would cost to get the amount of business the older utility now has.

The rule has been announced so often that we will not attempt to discuss the authorities, but will merely cite them:

- Macon Gas Light & Water Company, appraisal cited and discussed in Floy on Valuation of Public Utilities Properties, pages 349 to 369;
- In re Gately and Hurley, et al. v. Delaware & Atlantic Tel. & Tel. Co., et al.*, Board of Public Utility Commissioners of New Jersey, vol. 1, page 519;
- National Waterworks Co. *v.* Kansas City, 62 Fed., 853;
- Omaha *v.* Omaha Water Co., 218 U. S., 180;
- Bonbright *v.* Geary, 210 Fed., 44;
- Pioneer Tel. & Tel. Co. *v.* Westenhaver, 29 Okla., 429;
- In re Application Public Service Gas Co.*, Report of Public Utility Commissioners of New Jersey, vol. 1, page 433;
- Public Service Gas Company *v.* Board of Public Utility Commissioners, 84 N. J. L., 463;
- People *ex rel.*, Kings Co. Lighting Co. *v.* Willcox, 210 N. Y., 479.
- Newburyport Water Co. *v.* City of Newburyport, 168 Mass., 541.
- Gloucester Water-Supply Co. *v.* City of Gloucester, 179 Mass., 365;

- Des Moines Water Co. *v.* City of Des Moines, 192 Fed., 193;  
 Des Moines Gas Co. *v.* City of Des Moines, 238 U. S., 153;  
 Kennebec Water District *v.* City of Waterville, 97 Me., 185;  
*In re* Appelton Waterworks Co., 6 W. R. C. R., 97;  
 Mo. K. & T. R. Co. *v.* Love, 177 Fed., 493;  
 Galena Water Co. *v.* City of Galena, 74 Kan., 644;  
 Norwich Gas & Electric Company *v.* Norwich, 76 Conn., 565;  
 Brunswick & T. Water District *v.* Maine Water Co., 99 Me., 371;  
 Metropolitan Trust Co. *v.* Houston, etc., Co., 90 Fed., 683;  
 Bristol *v.* Bristol and Warren Water Works, 23 R. I., 274;  
*In re* Monongahela Water Co., 79 Atl. (Pa.), 625.

The necessity of considering "going value" was recognized by the Master in his report. He said:

"The term 'going value,' as used here, is intended, while excluding franchise and good will, to include another intangible element, which should, I think, be taken into account in the valuation of the property used by the company in the public service, and upon which it is entitled to claim a fair return.  
 \* \* \* The physical property, with all its parts articulated and ready to engage in the business for which it was created, is, of course, a valuable structure, but it is obviously far more valuable when commercially quickened by the outflow of gas and the inflow of revenue. This added value, though hard to estimate, is obvious enough, and cannot in justice and equity be disregarded for whatever purpose the valuation is made. It cost the company

through the years a good deal of money to get the consumers that it has; and even now, with the wide knowledge possessed by the public, of the convenience and economy of gas for light and fuel, it would require much time and expense for a new plant in exclusive possession of the field to build up a like business" (Transcript, pp. 46-7).

The Master is correct when he says that the "going value" of a property is difficult to estimate with precise accuracy. However, it is equally well settled that as long as this element actually inheres in the property, the difficulty of determining its amount should not deter legislative or judicial bodies in making allowance of same, especially where the matter of confiscation of a public utility's property is at stake.

THE MASTER'S ALLOWANCE OF GOING VALUE IS INADEQUATE AND NOT IN THE AMOUNT ESTABLISHED BY THE EVIDENCE.

The reproduction theory of valuation is recognized and applied by Mr. Lea in his estimate of going value of the company's properties in this case and his determination is that the going value of this property is \$225,000. He has worked out an accurate table (Transcript, p. 1355), showing precisely how he arrived at his conclusion and how long it would take a utility, newly created, to acquire the business of the present Company. His statement is clear and definite and all his figures or estimates were open during the hearings to any objection which the City wished to specify. Yet at no time did the City, during the taking of evidence, offer any method which it deemed proper to measure going value. It refused to measure or take it into account other than by claiming that it was reflected in the physical values given by Mr. A. D. Adams.

So that at the close of the testimony the only estimates of going value were those of the Company's witnesses.

Mr. Wettling, the expert for the Nebraska Railway

Commission, approved the method employed by Mr. Lea in determining the going value, and testified from his personal knowledge of the business of this Company, acquired through his directorship since 1901, that the cost of acquiring and retaining business was approximately \$30 per consumer (Transcript, p. 798) and which would amount to \$240,000 in round numbers for going value (Transcript, p. 799). Mr. Wettling testified in reference to the method employed by Mr. Lea in determining the going value as follows:

"I have examined Mr. Lea's calculation of the going value, shown in his report and offered in evidence, and I know that it is the method that has been approved by a great many engineers. I have heard it brought forward a great many times and it is a much more specific method than the one most ordinarily used of lumping the matter together by taking the foregone dividends for the whole period and calculating them and sometimes even computing interest up to the time or of taking the cost of acquiring patrons and consumers with a certain unit of cost and applying that to the number of consumers for the number of years. There are a great many methods used, but I think the most approved method, while in a way it is theoretical, it accords thoroughly with the practice, and that is the plan which Mr. Lea has applied. It is as scientific and accurate as any that can be projected" (Transcript, pp. 810-811).

Mr. E. C. Hurd, the engineer for the Nebraska Railway Commission, also testified with respect to going value and approved the method employed by Mr. Lea in determining the going value. Mr. Hurd testified in part, as follows:

"I have examined and understand the method presented by the tabulation of Mr. Lea to ascertain the going value of the Lincoln plant. Assuming that the figures of costs in Section K of Exhibit 7 are

correct and from my knowledge of this property here and its being in a successful situation, my opinion is that he has used an approved method and one that is used and accepted in estimating going value. That is what the going worth in a plant is over and above its physical factors of cost and shows what a man might pay for a property in addition to its physically shown investment because of it being a going concern" (Transcript, p. 819).

In confirmation of Mr. Lea's estimates, if we take three of the other methods of measuring going value, which have been adopted and approved in the cases above cited, and compare them with Mr. Lea's figures, we will have the results as set forth in the following table:

Calculated on basis of 20 per cent of:

Reproduction Value .....	\$1,258,461.00	
Less Going Value.....	225,000.00	
Less Working Capital.....	72,038.00	

Net Structural Reproduction Value.....	\$ 961,423.00	\$192,285.00
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Calculated on basis of 30 per cent of:

Present Value .....	\$1,090,913.00	
Less Going Value and Working Capital.....	297,038.00	

Net Structural Present Value.....	\$ 793,875.00	\$238,162.00
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Calculated on basis of cost to acquire patronage at \$30 per consumer—8,068 in Lincoln.....	242,040.00	
Average of above three methods.....	224,162.00	
Mr. Lea's estimate.....	225,000.00	
Difference between Mr. Lea's estimate and average of other methods .....		1,000.00

Now let us turn to the comments of the Master upon Mr. Lea's method of measuring going value, which was *expressly approved* by the Court of Appeals of New York. The Master says:

"The expert witnesses who testified in this case are not in agreement as to the method by which going value should be ascertained." \* \* \* (Transcript, p. 47.)

(The City put forward no calculation whatsoever.)

THE MASTER FOUND \$140,000 OF GOING VALUE, BUT ERRED  
IN ELIMINATING \$100,000 THEREOF.

The Master says:

"Whether this element of plant value was purchased entirely by earnings below or above a fair return on capital invested is not, as to a portion of the time at least, disclosed by the company's record. In other words, it does not satisfactorily appear to just what extent the company's business was acquired at its own expense, and to what extent it was acquired at the expense of the public. The company was, at all times, entitled to a fair return upon its investment, and whatever was received by it in excess of a fair return should go, in some form, to the credit of the public. If employed in the promotion of new business, the value of such business has manifestly no place in the valuation made as a basis for fixing reasonable rates. The record shows that between 1906 and 1913, the company paid out of its earnings and charged to operating expenses about one hundred thousand dollars (\$100,000.00) for the promotion of new business. In view of this fact, I conclude that an allowance of \$40,000.00 for going value is sufficient" (Transcript, p. 47-48).

The Master's conclusion involves the following propositions:

1. That, in the absence of proof, it will be assumed that there were excess earnings prior to the passage of the ordinance in question.
2. That, in the absence of proof, it will be assumed that some portion, or all, of the company's properties were acquired out of such excess earnings.
3. That, in the absence of proof in this case, he assumes that \$100,000 of plant value was acquired through past excess earnings.
4. That all past earnings which, upon such assump-

tion, were in excess of a fair return, were unlawfully acquired by the company, and should be "credited to the public."

5. That such "credit" should take the form of a *pro tanto* reduction of the present value of the company's property.

6. That if any portion of the company's property was purchased from such assumed excess earnings, that the company has no interest therein, and the same should thereafter be devoted to public use, without compensation.

These propositions of the Master would establish the following doctrines:

1. That the value of the property of a company, and the net result of its operation, for each of the years of the properties' existence, prior to the passage of the ordinance in question, can, in the absence of proof, be determined upon the basis of an assumption, since the question of excess rates must necessarily depend upon the value of the property at any given time employed in the public use, and the net earnings resulting from such use.

2. Further, if the earnings upon the property, prior to the passage of the ordinance in question, are to be considered in determining the validity of the ordinance, then the losses prior to the passage of the ordinance would, likewise, have to be considered, and the present value of the property and the present rate of earnings would be more or less depending upon the amount of such losses.

3. That a rate ordinance is not only effective from and after the date of its adoption, but is given a retroactive effect, and requires the company to give a

complete accounting for all of its earnings and expenditures on its property and operation, from the beginning of its business, involving a presentation of a valuation of its properties during all of such time.

4. That the long established rule that, in determining the validity of rate regulation, the present value of all property employed in the service should be considered, irrespective of the manner of its acquisition, should be abrogated.

5. That the long established rule that, the earnings of a company, prior to rate regulation, belong to the company, whether distributed by the company or re-invested in its properties, and that the same are private property and cannot be taken or required to be employed for public use without just compensation, should be abolished.

The Master's deduction of \$100,000 from the going value of the Company's properties compel a consideration of the following:

1. Are rates charged prior to rate regulation unlawful if it should subsequently develop that such rates yielded more than a fair return on a fair value of the property employed?

2. The company's earnings in excess of rates fixed by law may be regarded as excess earnings, but in the absence of rate regulation, can any part of the company's earnings be said to be excess earnings?

3. The company's property devoted to public use immediately becomes subject to public control and regulation, but until the public authorities regulate the rate, the company is free to fix its own rate of charges, and such charges are not unlawful, and the earnings resulting belong to the company.

4. In the absence of rate regulation, it must be assumed that the rates established by the company are satisfactory to the public, since the public has the right at any time to step in and fix a reasonable rate.

**THE EVIDENCE SHOWS NO EXCESS EARNINGS IN THE PAST.**

This statement of the Master's is so important, and announces a doctrine which is, we submit, so completely unsound, and is so repugnant to the fundamental principles of law governing rate regulation, that we deem it not out of place to give time, at this point, to its complete discussion and analysis.

In the first place, the Master is in error when he says, "The record does not disclose whether this element of plant value was purchased entirely by earnings below or above a fair return on capital invested." We insist that the record does make such a showing, and, if examined, will reveal the fact that the Company, throughout the greater part of its existence, must have been in rather dire straits and could not have had excess earnings. To be sure, inasmuch as the property was built in 1873, it was impossible to produce and put in this record a complete accounting of the properties' financial history from its inception down to the end of the last century. But the testimony of witnesses who were familiar with the facts, shows that from 1900 on, the financial condition of the Company was such that to charge it with having acquired excess earnings is little short of ridiculous. Mr. Honeywell, the Company's manager, testified (Transcript, p. 149) that in 1904, the Company was about \$40,000 behind in its bills and taxes and was unable to maintain its plant and meet the interest on its bonded debt, and that the emergency thus existing required a contribution of \$100,000 from stockholders. It goes without saying that this situation did not arise immediately, but must have been

growing for a period of three or four years at least. This gives us a general statement of the Company's financial position from 1900 to 1907. The record in this case shows what has transpired since that latter date. The only period during which no precise figures of earnings or valuation were produced was the period between 1873 and 1900; but from an examination of the Company's gas sales and other statistics which are in the record, any suggestion of excess earnings between the period of 1873 and 1900, can be eliminated from further discussion. For instance, the gas sales of the Company increased from nothing in 1873, to only 20,000 M. cubic feet of gas per annum in 1889, and had only increased to 42,000 M. cubic feet of gas by 1899; whereas, in 1912, the gas sold was 227,000 M. cubic feet per annum (Transcript, p. 1359). Thus, it will be seen at a glance that the greater part of the Company's gas sales were procured between 1900 and 1912, as represented by the difference between 42,000 M. cubic feet and 227,00 M. cubic feet. It is rather absurd to suppose that there could be any excess earnings resulting from gas sales which had developed in 27 years only to 42,000 M. cubic feet per annum. Furthermore, we can see that the Company's investment in the years mentioned prior to 1900, must have been considerable in comparison with the amount of gas sold. The construction account in 1890, showed an investment of \$160,149.55, and in 1900, an investment of \$407,620.46 (Exhibit 158; Transcript, p. 8196). By 1899 the Company had 75,000 feet of mains, 850 house services, and 1,100 meters. By 1900, its mains had increased to 159,000 feet, its house services to 2,000, and its meters to 3,500 (Transcript, p. 1360, 1361, 1362).

In view of these facts, although the record does not show the precise earnings and the exact valuation in each of the years prior to 1900 (and that is impossible to procure), it may be fairly gathered from the record

that such a thing as past excess earnings were an impossibility.

Furthermore, the testimony of Mr. Wiggins (Transcript, p. 210) shows, that since 1890 at least, neither the Company nor its predecessors ever paid any dividends upon its capital stock, and prior to that time the record is silent as to dividends.

If we view the statement of the Master from another standpoint, it will be seen at once what far-reaching consequences there are to the doctrine which he announces, where legislative enactment seeks to control the rates of property devoted to public use. If it is claimed by a utility that such enactment is confiscatory, the burden of proof is upon the utility to establish such fact. The error which the Master has fallen into is, that he applies this doctrine to periods prior to the enactment of the rate ordinance which is being attacked. Now, if it is incumbent upon the utility to show that during no year or month of its existence it earned a rate of return in excess of a fair return upon the value of its property, as it existed at any particular period, upon the assumption that any such excess should be "credited to the public," and, therefore, deducted from the plant value of the utility, a burden would be placed upon the utility attacking such legislation which it would be quite impossible for it to sustain. It would be, in most cases, an impossible thing to prove, and the result of such a doctrine would mean that there would be no such thing as a limitation upon the power of rate regulation.

Mr. Justice Harlan, in *Smyth v. Ames*, *supra*, placed a clear limitation upon a rate-regulating power when he announced the doctrine that rate regulation must not be such that it would deprive a utility of a fair return upon the *present value* of its property, and in the prior appeal in this case, Mr. Justice Lurton (p. 458) said:

"The valuation fixed by the Court is the main point of attack. That the company is entitled to a fair return upon the value of the property at the time of the inquiry is the rule."

If, however, the Master's doctrine is to be sustained, the limitation originally announced by Mr. Justice Harlan, would be, in effect, nullified by the expedient of placing a burden of proof upon a utility to show that at no time in its history, prior to the regulating ordinance, it earned a return in excess of a fair rate.

But if the Master, lacking proof upon past earnings, is to make any assumption that a certain amount of plant value might have been created through excess earnings, where is this assumption to stop? Why does he limit it to \$100,000, and why limit it to going value? What reason is there, according to his theory, for stopping at any figure, and why would he not be justified, if his theory is to apply, in assuming that the entire plant of the company was purchased by past profits in excess of a fair rate of return, so that the utility could be then devoted to public use without any compensation whatsoever. There is, we submit, no possible justification for the Master's assumption, for if the assumption is allowed to stand, there can be no limitation to the values of which the utilities can be stripped by this process. The Master's theory is, we maintain, absolutely specious and unsound, and has no justification either in law or reason.

In this connection, however, we beg to bring to the attention of the Court the fact that this utility has been regulated by constituted authority from the moment of its existence. In the ordinance which granted its franchise, in 1873, a maximum rate for gas was fixed (Transcript, p. 3). Furthermore, in 1899, a further rate regulating ordinance was enacted, which prescribed maximum rates which the company could charge for

gas which fixed a sliding scale of gas rate until October 1, 1905 (Transcript, p. 271). This situation, of a utility actually being regulated from the moment of its existence, creates, we submit, a presumption (if any presumption is to be made), that at no time was the return of the company in excess of a fair rate upon the value of its property devoted to public use.

THE MASTER IS IN ERROR IN RESPECT OF THE UNDERLYING  
DOCTRINE OF RATE REGULATION REFERRED TO IN THE  
PROPOSITIONS HERETOFORE SUMMARIZED.

We submit that the Master has fallen into an error (which is not infrequent), due to a misconception of the terms and phrases which are very often used in cases involving rate regulation.

Where property is devoted to a public use, it is subject to regulation and control by the public authorities, not only as to service, but also as to rates. This is a condition which inheres in the operation of such property the moment it is devoted to a public use, and continues as long as it is operated for such use. On the other hand, there is a limitation in the exercise of this rate-regulating authority, which grows out of the Fourteenth Amendment of the Constitution of the United States, and that limitation is, that regulation must not go beyond the point where it deprives the owner of the property of a fair return upon the value thereof. This doctrine has frequently been briefly summarized by the statement that all property devoted to public use is subject to regulation and control, but that regulation and control must be such as not to deprive the owner of the property of a fair rate of return upon the value of such property. In the frequent application of this doctrine, the phrases used in applying the same have been very often loosely constructed, with a view of stating the result of the doctrine, rather than its reasons; and so we have often heard it said that a property

devoted to a public use is only entitled to earn a fair return upon the value of such property. This statement of the rule creates an ambiguity, in that it implies that, irrespective of regulation, the property devoted to a public use is only entitled to earn a fair return upon its value; whereas, a correct statement of the doctrine is, that such property so devoted to a public use is always *subject to be controlled* to such an extent that it can earn no more than a fair return upon its value; but *until the rate-regulating authority deems it expedient to act* in respect of regulation of rates, a property devoted to public use is not subject to restriction in its earnings, other than the *possibility* of regulation which may be applied to it at any time, subject to the limitation above set forth.

Due to this misconception, we frequently hear the theory advanced, at the present time, that if, prior to regulation, a public utility has earned more than a fair return upon its value, this excess is an amount which should be placed to the credit of the public; that the public has paid more than the utility was entitled to collect for its service, by reason of the fact that from the instant of its creation as a public utility a rule automatically applied to it which prevented its making a profit in excess of a fair return. This is, we submit, error, and those who advance this doctrine have completely lost sight of the fundamental principles governing the relation of utilities to the public.

We need go back no further than the case of *Munn v. Illinois*, 94 U. S., 113, where Mr. Chief Justice Waite, in his learned opinion in that case, laid down some of the fundamental principles governing rate regulation. After considering at some length the early English decisions by which the rates in respect of ferrys, common carriers, hackmen, bakers, millers, wharfingers, innkeepers, &c., were fixed by statute, he says, at page 125:

"This brings us to inquire as to the principles upon which this power of regulation rests, in order that we may determine what is within and what without its operative effect. Looking, then, to the common law, from whence came the right which the Constitution protects, we find that when private property is 'affected with a public interest, it ceases to be *juris privati* only.' This was said by Lord Chief Justice Hale more than 200 years ago, in his treatise *De Portibus Maris*, 1 Harg. Law Tracts, 78, and has been accepted without objection as an essential element in the law of property ever since. Property does become clothed with a public interest when used in a manner to make it of public consequence, and affect the community at large. When, therefore, one devotes his property to a use in which the public has an interest, he, in effect, grants to the public an interest in that use, and must submit to be controlled by the public for the common good, to the extent of the interest he has thus created. He may withdraw his grant by discontinuing the use; but, so long as he maintains the use, he must submit to the control. \* \* \*

"So if one owns the soil and landing-places on both banks of a stream, he cannot use them for the purposes of a public ferry, except upon such terms and conditions as the body politic may from time to time impose; and this because the common good requires that all public ways shall be under the control of the public authorities. This privilege or prerogative of the King, who in this connection only represents and gives another name to the body politic, is not primarily for his profit, but for the protection of the people and the promotion of the general welfare."

The Court then quotes at length from numerous common law decisions, and then proceeds, as follows (p. 130):

"But we need not go further. Enough has already been said to show that, when private property is devoted to a public use, it is subject to public regulation. It remains only to ascertain whether the

warehouses of these plaintiffs in error, and the business which is carried on there, come within the operation of this principle."

**Page 133:**

"It matters not in this case that these plaintiffs in error had built their warehouses and established their business before the regulations complained of were adopted. What they did was from the beginning subject to the power of the body politic to require them to conform to such regulations as might be established by the proper authorities for the common good. They entered upon their business and provided themselves with the means to carry it on subject to this condition. If they did not wish to submit themselves to such interference, they should not have clothed the public with an interest in their concerns. The same principle applies to them that does to the proprietor of a hackney-carriage, and as to him it has never been supposed that he was exempt from regulating statutes or ordinances because he had purchased his horses and carriage and established his business before the statute or the ordinance was adopted."

From this decision it is apparent that where property is devoted to public use, the owner "must submit it to be controlled by the public for the common good," and this right of control is a privilege or prerogative of the king or body politic. It will be noted that the Learned Chief Justice does not say that where the property is devoted to public use, an inhibition automatically applies, which prevents it from charging more than a reasonable rate; but upon being devoted to such public use it immediately becomes "subject to public regulation." He specifically says that it does not matter that the warehouses in question had been built and their business established before the regulation was adopted, but they acted from the beginning "subject to the power of the body politic to require them to conform to such regulations as might be established."

So, too, in *Smyth v. Ames*, 169 U. S., 466, Mr. Justice Harlan said (p. 545):

"A corporation maintaining a public highway, although it owns the property it employs for accomplishing public objects, must be held to have accepted its rights, privileges and franchises subject to the condition that the government creating it, or the government within whose limits it conducts its business, may by legislation protect the people against unreasonable charges for the services rendered by it. . . . The corporation may not be required to use its property for the benefit of the public without receiving just compensation for the services rendered by it. How such compensation may be ascertained, and what are the necessary elements in such an inquiry, will always be an embarrassing question. . . .

"We hold, however, that the basis of all calculations as to the reasonableness of rates to be charged by a corporation maintaining a highway under legislative sanction must be the fair value of the property being used by it for the convenience of the public. . . . What the company is entitled to ask is a fair return upon the value of that which it employs for the public convenience. On the other hand, what the public is entitled to demand is that no more be exacted from it for the use of a public highway than the services rendered by it are reasonably worth."

In this case the Court went further than in the case of *Munn v. Illinois*, and expressed the limitation which should apply to the power of regulation and control, that is, that it should not be such as to deprive the owner of the property of a fair return upon the value thereof.

In the *Railroad Commission Cases*, 116 U. S., 307, Mr. Justice Waite, again said, page 325:

"It is now settled in this Court that a State has power to limit the amount of charges by railroad

companies for the transportation of persons and property within its own jurisdiction, unless restrained by some contract in the charter, or unless what is done amounts to a regulation of foreign or interstate commerce. \* \* \* This power of regulation is a power of government, continuing in its nature, and if it can be bargained away at all it can only be by words of positive grant, or something which is in law equivalent."

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"From what has thus been said, it is not to be inferred that this power of limitation or regulation is itself without limit. This power to regulate is not a power to destroy, and limitation is not the equivalent of confiscation. Under pretense of regulating fares and freights, the State cannot require a railroad corporation to carry persons or property without reward; neither can it do that which in law amounts to a taking of private property for public use without just compensation, or without due process of law."

It will be noted from this language that this power of regulation is a thing which can be bargained away by the public authority, which clearly indicates that no automatic rule applies to property immediately upon its being devoted to public use, but that the power to control is something which could be waived by the authorities empowered to exercise it.

In *C. B. & Q. Railroad Co. v. Iowa*, 94 U. S., 155, Mr. Chief Justice Waite again said:

"It is a matter of no importance that the power of regulation now under consideration was not exercised for more than 20 years after this company was organized. A power of government which actually exists is not lost by nonuser. A good government never puts forth its extraordinary powers, except under circumstances which require it. That government is the best which, while performing all

its duties, interferes the least with the lawful pursuits of its people."

See, also,

Ames *v.* Union Pacific, 64 Fed., 165.

Brymer *v.* Butler Water Co., 179 Pa. St., 331.

Kennebec Water District *v.* City of Waterville,  
97 Me., 185.

Clinton Telephone Case, Wis. R. C. R., Vol. 3,  
page 126.

From all of the foregoing, it will appear that the Master has fallen into error where he seeks to imply that there is a question not clearly established by the evidence as to whether the plant value represented by its going value was "purchased entirely by earnings below or above a fair return on capital invested," as he says: "It does not satisfactorily appear to just what extent the company's business was acquired at its own expense, and to what extent it was acquired at the expense of the public." That he has entirely misconceived the principles of rate regulation is shown by the following sentence: "The company was at all times entitled to a fair return upon its investment, and whatever was received by it in excess of a fair return should show in some form to the credit of the public."

Furthermore, the extension of this doctrine to its logical conclusion would bring about an absurd result. Assume, for example, that a public utility was constructed and put in operation prior to the exercise of any rate regulating authority; assume, further, that a reasonable rate of return would have been held to be eight per cent., if the rate regulating authority had been exercised; assume, further, that this hypothetical utility earned, for the first ten years of its existence, eighteen per cent. upon the value of its property, or ten per cent. in excess of what would have been held

to have been a fair return, in the event that the regulating authorities had acted. At the end of the ten years the company would have earned not only eight per cent. annually on the value of its property, but, also, in addition, an aggregate of one hundred per cent. of its value; in other words, the original investors would have received from earnings their entire capital investment, plus an annual revenue of eight per cent. thereon. If we assume that at the end of a ten-year period the rate-regulating authority deemed it expedient to act, and a valuation of the company's properties was ordered and had, in accordance with the doctrines announced by the Master, it would then appear that, inasmuch as one hundred per cent. of the value of the property was "acquired at the expense of the public," and, therefore, should "show to the credit of the public," that the public would have the right to step in and take the plant away from the owners, without any compensation whatsoever, or, in the alternative, to compel them to operate the plant from then on and *ad infinitum*, without profit. This, we submit, is an absurd conclusion.

We desire to bring to the attention of the Court what we submit is a misconception which has crept into the opinion of this Court in the case of *Des Moines Gas Company v. Des Moines*, 238 U. S., 153. In considering the value of the utility in that case, by reason of the fact of its being a going concern the Court discussed this feature of value as inhering in a property because of its early losses. Mr. Justice Day there said (p. 165):

"Included in the going value as usually reckoned is the investment necessary to organizing and establishing the business which is not embraced in the value of its actual physical property."

This is, we submit, not strictly accurate, in view of the fact that in that case, as in here, the present value

of the property was being determined by the application of the reproduction theory; in other words, the Court in that case was not endeavoring to ascertain the "original cost," or "investment value" of the company's property, but it was endeavoring to ascertain the "present value" of the property, established by fixing the cost of reproducing the plant in its present condition. Consequently, the item of going value should be fixed in the same way; in other words, not by reference to the investment in establishing the business, but by the cost of reproducing said business already established:

It will be seen that from this misconception has arisen another inaccuracy, which is contained in the language of the Court immediately following the sentence above quoted. The Learned Justice then proceeds as follows:

"In this case, what may be called the inception cost of the enterprise entering into the establishing of a going concern had long since been incurred. The present company and its predecessors had long carried on business in the City of Des Moines, under other ordinances, and at higher rates than the ordinance in question established. For aught that appears in this record, these expenses may have been already compensated in rates charged and collected under former ordinances. As we have said, every presumption is in favor of the legitimate exercise of the rate-making power, and it is not to be presumed, without proof, that a company is under the necessity of making up losses and expenditures incidental to the experimental stage of its business."

From this language, we submit that an erroneous conclusion might be drawn, to the effect that if a utility, whose rates are being regulated and whose property is being appraised, has concededly a going value, yet, it might be presumed, in the absence of proof to the con-

trary, especially if the utility was long established, that the so-called early losses had been made up by returns in excess of a fair return, prior to regulation; and that such a presumption, in the absence of proof, would eliminate any consideration of the going value which inhered in the Company's properties.

We submit that the proper doctrine is, especially where the reproduction theory is being applied, that it makes no difference what the early losses of the particular company in question were, or whether or not they had been made up by so-called "excess profits" in the past, prior to the exercise of regulative control. The fact to be considered is, we submit, that in the utility being valued a certain element of value inheres in its property, by reason of the fact that its business is established, and that this element of value is just as real as the value of its physical properties, and that the problem to be determined is how much more valuable is the plant in question with its established business than a plant similarly situated without business; and this leads to the further question, how much would it cost at the present time to establish the business which the company has? We agree that this question is not free from difficulties, but we submit that it is not to be solved by any proof of the actual early losses which any particular company sustained, or by any presumption that those earnings may have been made up by "excess profits" in the past, prior to rate regulation.

In our case, if there is any presumption at all, we submit that the presumption should be in favor of the appellant herein, inasmuch as from the organization of this utility its rates have not only been subject to control, but have actually been regulated by specific ordinance, so that it should be presumed, if any presumption is to be made, that the rates so fixed by ordinance allowed only a reasonable return to the utility.

The Master allows as the going value of the Company some \$40,000, but in connection therewith he makes this statement: "The record shows that between 1906 and 1913 the Company paid out of its earnings and charged to operating expenses about \$100,000 for the promotion of new business. In view of this fact, I conclude that an allowance of \$40,000 for going value is sufficient." This statement of the Master is quite clear, and it means the following: That it would cost to establish the present business of the Company \$140,000, but, inasmuch as the Company has expended \$100,000 from earnings, and it does not appear as to whether or not those earnings were partly in excess of a reasonable return, and, also, the money so expended was charged to operating expenses, that it should be deducted from that element of value known as going value, which inheres in the Company's properties.

We submit that this doctrine is quite erroneous; that from the Master's own finding the going value of the Company's properties was \$140,000; that it is quite immaterial, as clearly stated in the case of *People ex rel. Kings County Electric Lighting Co. v. Willcox*, *supra*, and *In re Application of Public Service Gas Company*, report of New Jersey Commission, Vol. 1, p. 433, that this was charged to operating expenses, and that, therefore, "the Company received it back." Whether the amount so expended was received back or not, because charged to operating expenses, the fact remains that the value so established by virtue of said expenditure inheres in the property as of the time the Master's valuation was made, and, inasmuch as his problem was to determine the value of the Company's property at that time, there is no justification in law or reason for not allowing the full sum of \$140,000 as such going value."

THE MASTER INDICATED NO BASIS FOR THE DETERMINATION OF GOING VALUE.

We have endeavored, without success, to determine why the Master shows only \$140,000 as the going value of the Company's property. If there was any basis for the adoption of this figure, or whether any method whatsoever was applied by the Master in arriving at this amount, the report does not disclose it. His report makes it clear that there is a going value which should be taken into account in the valuation of the property, and that the difficulty in estimating this element of value should not excuse the Court for failure to make a proper determination in respect thereof. He said (Transcript, p. 46):

"the public is entitled to be served at reasonable rates and that the company rendering the service is entitled to a fair return upon the value of the property used by it in the service. This statement has become, by judicial iteration, an axiom in the law of rate making, and the demand of the company to have it applied in this case is not answered by pointing out difficulties besetting its application. Constitutional guarantees for the protection of private property are not to be set aside, because precision and exactitude in making valuation are not practically attainable. \* \* \* This added value, though hard to estimate, is obvious enough, and cannot in justice and equity be disregarded for whatever purpose the valuation is made."

It is clear from this language that the Master recognizes his responsibility to estimate and determine the going value which inheres in the Company's properties, and further recognizes the fact that the difficulty in estimating the same should not be made a deterring factor in granting the Company the full value of this intangible element.

We submit that the Master in reaching his conclu-

sions as to going value, must look to the evidence in this case, or, at all events, if he uses some method or basis of calculation not advanced by any of the witnesses who testified before him, that he should set forth precisely what this method or basis was which he used, and explain why the methods advanced by the various witnesses were rejected, and why he deemed it more advisable to use the method which he adopted, rather than the method advanced by the various witnesses. Especially is this true where the method employed by him, whatever it was, results in the reduction of all amounts shown in calculations submitted by any of the witnesses, of approximately \$85,000. He comments briefly in his report on the method advanced by the witnesses, and criticises some of them, but he does not disclose the alternative method which he adopted in arriving at his conclusions. He said (Transcript, p. 47) :

"The expert witnesses who testified in this case are not in agreement as to the method by which going value should be ascertained. The essence of the process suggested by one of the witnesses is to consider the length of time it would take a person who wanted the business to acquire its equivalent, and then determine the price such person would be willing to pay."

The Master is here referring to the method testified to by the City's witness, Mr. Alton D. Adams, and in this connection we beg in direct the Court's attention to the fact that in spite of repeated and persistent efforts on behalf of counsel for the company, Mr. Alton D. Adams positively refused to give any actual valuation by the employment of the method he suggested, or by any other method whatsoever (Transcript, pp. 1040-1044). He was examined at some length on this matter, and testified as to the various elements which should be considered in making up the measure of going value, but he positively

refused to make any calculation or give any figures resulting from the application of such measure, and at the close of the testimony there was no figure in the record by which the going value of the Company was actually measured by any of the City's witnesses.

As heretofore shown, Mr. Lea, the Company's witness, testified as to the going value of the Company, and stated in his opinion that the same was \$225,000, and in justification of his figure he set forth in detail his method of computation, and described at length the elements going into this valuation and the cost of acquiring the business which the company had. This is set forth in Exhibit 7 (Transcript, pp. 1352-5). This method of Mr. Lea's was approved by Mr. Wettling, the expert for the Nebraska Railway Commission, and by Mr. Hurd, the engineer of the Nebraska Railway Commission, and Mr. Wettling further testified the result by a computation of his own, based on the actual experience of the Lincoln Company, which was a matter of his personal knowledge. The Master dismisses from consideration Mr. Lea's method of measure going value, as follows (Transcript, p. 47): "This method seems to me highly artificial, and is, at best, only moderately persuasive." He fails to point out, however, wherein the computation of Mr. Lea is in error, or in just what respect it fails to show the actual value of the Company's business. Furthermore, the method employed by Mr. Lea was approved and applied in the case of *People v. Kings County Electric Company*, *supra*.

The Master states (Transcript, p. 47) that the evidence does not give any adequate basis for the ascertainment of going value by capitalization of early losses. In this he is correct, as no evidence was introduced on the subject, and none was available, and none of the witnesses attempted to measure going value by this means.

The Master, therefore, dismisses from consideration

all methods of computing going value which were offered in evidence, with concrete results. He does not comment on the method advanced by Mr. Alton D. Adams, other than to state what it is, but this method of measuring going value, not being accompanied by any computation showing its actual application, could not have been the basis for any of the Master's conclusions.

It is the position of the Company, and we have always insisted since the filing of the Master's report, that if the Master is to repudiate and discredit the methods of measuring going value which were used by the witnesses who testified before him in calculating the amount of going value and the amounts which they advanced as their opinion represented the going value of the Company, were to be cut down by the Master to the extent of at least \$85,000, it was the duty and obligation of the Master to set forth in precise details what method was deemed by him to be the proper one in measuring this element of value. He does not do this. His report contains not the slightest suggestion of how he arrives at his conclusions on this matter. He merely sets forth catagorically his determination that the going value of the Company is worth \$140,000. By disposing of the matter in this way, he renders it absolutely impossible for the Company to point out any errors in the method employed or the results obtained from the employment of such method; in other words, he conceals the method by which he reached his figure. This, we submit, is not in conformity with the instructions of the Supreme Court in reversing this case on the trial appeal and remanding the same for complete findings.

Another point which we wish to bring to the attention of the Court is the Master's assumptions with regard to the profits and losses. As to losses, he says

that the evidence gives no adequate basis for their ascertainment, whereas, as to profits, he assumes, in the absence of evidence, that there were past excess profits. This raises two questions: (1) What is the justification for an assumption in respect of profits that does not equally apply to losses? (2) How can profits be assumed or ascertained without a knowledge of losses, both of which go to make up the net result of the company's operations?

We submit that the Company has proved by the preponderance of competent evidence that the going value of the Company's properties is \$225,000, but that, furthermore, according to the Master's own finding, the going value of said properties should be not less than \$140,000.

## V.

### Valuation for 1907.

#### (1)—MATHEMATICAL ERROR OF THE MASTER.

The Rate Ordinance here under consideration was adopted in December, 1906; therefore, the valuation of the Company's properties as of January 1st, 1907, is of particular importance, because the year 1907 was the first year in which the rate was intended to take effect.

We submit that the Master in his report (which was confirmed by the Court below), has made, in his determination of the value of the Company's properties as of January 1st, 1907, a simple mathematical error. A proper adjustment of this error upon the basis of the Master's own findings will, we submit, completely upset the Master's conclusions.

It will be recollected that the testimony was taken before the Master after January 1st, 1913, and that all valuations were made as of that date. So that having determined the January 1st, 1913, valuation, it was then

necessary to work back over a period of six years to determine the valuation as of January 1st, 1907. This was done by the experts who were the two principle witnesses for the Company and the City.

The Master said:

"If the value of plaintiff's property, tangible and intangible, on January 1, 1913, was \$676,565, as I have found it to be, its value January 1, 1907, may be readily ascertained by eliminating all values added to the plant between these dates." (Transcript, p. 52.)

He then enters upon a discussion of the construction which had taken place between January 1st, 1907, and January 1st, 1913, and after making certain adjustments he states:

"but from a full consideration of the evidence, I find that all values, tangible and intangible, added to the plant between January 1, 1907, and January 1, 1913, were worth at the latter date \$240,000. Deducting this amount from \$676,565, the value of January 1, 1913, leaves \$436,565, representing the investment upon which the Company was entitled on January 1, 1907, to receive a fair return." (Transcript, p. 52.)

It is just here that the Master makes his mathematical error, which is this: His 1913 valuation was a present value, that is to say, a value of the Company's properties as of January 1st, 1913; in other words, a *depreciated* value. Therefore, included in the figure \$676,565 (the 1913 valuation), there is embraced the property which the Company owned in 1907, valued as it existed in 1913, that is, with the depreciation from 1907 to 1913 deducted before the final value was arrived at. To express it another way: The property which the Company owned in 1907 was included in the Master's 1913 figure, at a value reduced by six years'

depreciation. When, therefore, the Master deducts from his 1913 valuation "all values, tangible and intangible, added to the plant between January 1, 1907, and January 1, 1913," which "were worth *at the latter date* \$240,000," he reached a result which represented the property owned by the Company in 1907, less the amount which it had been depreciating from year to year between 1907 and 1913.

The only question which remains, in order to adjust the Master's 1907 valuation to his own figure, is to find out just how much the property, as it existed in 1907, was depreciating each year, in order to add this amount to the value of that same property as it existed in 1913. Now, the Master found that in 1907 a sufficient allowance for a depreciation reserve, to be charged into the operating expenses of that year, was \$10,000; that is to say, in 1907 the Company's property then owned was depreciating at the rate of \$10,000 a year. Obviously, therefore, this property was worth \$60,000 less in 1913 than in 1907. In order, then, to recast the Master's figures and work back from his 1913 valuation to 1907, it will be necessary to add \$60,000 to the sum of \$436,565, which the Master found as the 1907 valuation. On the basis of the Master's own findings, therefore, the 1907 valuation should be \$496,565, instead of \$436,565.

The Master, after figuring the company's gross and net income, and what he considers a proper allowance for operating expenses, concludes that the company would have earned, in 1907, with gas selling at \$1.00 per M cubic feet, 5.12% upon the value of its property. However, if we adjust the error in the Master's figures, as pointed out above, we find that the return in that year, on the valuation as the Master found it, was only 4.5%.

If we go further, and add to the 1907 valuation the \$100,000 of going value which the Master found existed, but which he left out of his calculation for the reasons

heretofore stated, we would have a valuation in 1907, of \$596,565, and a rate of return of 3.7%.

In view of the evidence in this case, can this be said to be a fair return on the value of the company's properties in the first year in which the ordinance was to be effective? If we grant that the ordinance was invalid, because confiscatory, the first year that it was to be operative, this eliminates the necessity of further consideration of any of the subsequent years.

Even though the Master, on the basis of his own findings of values and returns, and including the error which his own figures show, finds a return of but 5.12% for the year 1907, he also finds that "a rate not lower than six per cent. upon their invested capital could not be regarded as confiscatory." He justifies his upholding the rate by the following:

"All human experience has shown that increased consumption follows quickly a reduction in the price of commodities, and the evidence in this case satisfactorily shows that gas is no exception to the rule. I find that with gas selling at \$1.00 per M cubic feet, plaintiff would have received since December 1, 1907, when the rate ordinance was to be effective, not less than 6 per cent. per annum upon the value of the property employed by it in serving the people of Lincoln" (Transcript, p. 55).

The entire basis for the Master's conclusion that the Rate Ordinance was valid, is based upon his mere speculation that with the reduced rate the sales of gas would have so greatly increased that they would have made up the difference between the \$1.00 rate and the \$1.20 rate; although there is no evidence in the record, either opinion or otherwise, which would indicate that such effect would take place the first year after the ordinance was put into effect. We submit that there is no warrant or justification for such a conclusion, and that the com-

pany's properties should not be confiscated by the hypothetical deductions of the Master.

From a consideration of the above matters, we respectfully submit that the testimony in this case, even on the basis of the Master's own figures, conclusively proves that the properties of the appellant were confiscated by the Rate Ordinance, which is the subject matter of this suit, and that said Ordinance is, and was, since the time of its adoption, null and void.

**(2) MASTER'S 1907 VALUATION NOT SUPPORTED BY THE EVIDENCE.**

The Master's valuation for 1907 is so clearly inadequate, and the basis for it so concealed as to require the Court, in our judgment, on this appeal to set it aside and fix a value in a proper and adequate amount.

The Master fixed the present value of the Company's properties, as of January 1, 1907, at \$436,565. This is the Master's present value for the whole property. There is nothing in the Master's report and findings showing (1) his valuation of any particular portion of the Company's property, but the value is given in a lump sum for the whole property; (2) there is nothing to show the Master's present value of the physical properties of the Company as of that date; (3) or to show the Master's value for intangible properties of the Company as of that date; (4) or to show the amount of working capital included in the value of the Company's properties as of that date; (5) or to show the amount of accrued depreciation in any portion or all of the Company's properties as of that date; (6) or to show the Master's figure for replacement cost of any part or portion or the whole of the property valued as of that date. The Master simply gives a valuation in which he has combined the tangible and intangible properties of the company, presumably from his valuation of 1913, and gives a lump sum of \$436,565 as the

present depreciated value. It is impossible for the Company to compare this lump sum, including, as it does, both tangible and the intangible properties, and including working capital, with the replacement cost and present value of the physical properties of the Company, as shown by the evidence, or as found by Judge Munger upon the former trial.

The construction account of the Company, running back to 1873, showed construction, after making all proper credits for reconstruction, in the amount of \$589,887.84 (City's Exhibit 185; Transcript, p. 1896). This amount shown in the construction account does not include (1) working capital, (2) going value, or (3) overhead expenses, such as were considered and allowed by the Master in his valuation for 1913. This amount shown in the construction account simply represents the labor and material cost, without the ordinary overhead entering into the construction of the physical properties of the Company. There is evidence in the record to show that the construction account, as carried by the Company on its books, did not include all of the new construction or all of the items which should be included in the construction account.

Mr. Wiggins, expert accountant, was called by the City as a witness, and testified that in the preparation of the Exhibit 185, he had gone outside of the construction account to get one item of \$20,000, which he brought in as a proper item to be added to the construction account (Transcript, p. 1254). It developed in the course of Mr. Wiggins' examination that he had devoted considerable time checking over the books and records of account of the Company, and prepared an Exhibit, which the City introduced in evidence, showing the amount charged to construction on the books of the Company from 1873 to 1912. This Exhibit, down to 1907, was prepared by Mr. Wiggins, and was offered

in evidence upon the former hearing, and is Exhibit E (Transcript, p. 253), and the items entering into the construction account for each of the years, as prepared by Mr. Wiggins and offered in evidence by the City, are found on pages 305 to 387. The construction account shown in the Exhibit presented by the City, showed \$603,278.14 entered in the account up to June 30, 1907. After this case was referred to the Master, Mr. Wiggins, for the city, brought the construction account down to 1912, and submitted Exhibit 158 (Transcript, p. 1896-1897), and also an Exhibit showing the credits in this account from 1873 to 1912 (Transcript, p. 2037-2061). Mr. Wiggins testified:

"I found an honest effort on the part of the Company to keep a correct record of the cost of the expenditures of the Company, and found nothing to criticize in the showing of the income and expenses (Transcript, p. 1252). \* \* \* In 1873 the construction account was some \$54,000 and the next year only \$887.31, and the next year I found nothing (Transcript, p. 1253). \* \* \* My Exhibit shows the total construction account up to 1890, the total there is \$203,450.83."

At page 207, upon the former hearing, Mr. Wiggins, referring to the construction account, testified:

"I have not seen anything to indicate but what the charges were proper enough. From all of these items \* \* \* I find no charge in the construction account, but what appears on the face of the record to be legitimate, especially the more important items."

Mr. Wiggins further testified (Transcript, p. 1254):

"In 1890 I had to go outside and get \$20,000, and put it in the construction account. I believed it belonged there. In 1875 and 1876, the record shows that it was necessary to take up \$2,396 feet of 6 inch

pipe, and lay from the works to 11th Street on O and 400 feet of 3 inch pipe on O Street, and relay that amount of iron pipe. The construction account of that year shows a total of \$9,937.44, of which \$1,001.00 is for pipe. The 1878 construction account was \$1,656.06, and in the minutes of the meetings of the stockholders, held on January 15th of that year, there is shown that they built a re-tort house 30 x 50 and also built a brick lime house 12 x 20; a coal house 14 x 30 and a new coal gas works of the latest make made by Morris, Haskin & Company of sufficient capacity to make 40,000 feet of gas daily and I find no items in the construction account of 1878 covering that, but in 1876, I find that the Morris, Haskin Company was paid \$2,417.00. The construction account for 1877 is \$3,371.55, and I hardly suppose that the cost of a new coal gas works would be included in an item of that size. Under the same date in the same record they have constructed a lead of 9,800 feet of mains, and that has not been included in the construction account of 1877 of \$3,371.55 and in the next year \$1,656.06. I am unable to explain this. If an inventory is honestly taken, it controls over bookkeeping.

From Mr. Wiggins' Exhibit 158 (Transcript, p. 1896), it appears that at the close of 1889 there was charged to construction, from 1873, on the books of the Company, \$160,149.55, and that on October 31, 1900, from 1873, there was charged to construction account \$407,620.46, and that at the close of 1906 there was charged to construction account \$589,887.84.

Mr. Phillips, Secretary of the Company, testified, showing that the construction account did not carry expenditures for main maintenance, or the amount expended on reconstruction. He testified:

"If we were to put in a new water gas set and discard entirely the old set, the original cost of the old set would be deducted from the cost of the

new set and the difference charged to construction (Transcript, p. 757). \* \* \* We keep a separate account which covers additional equipment or items of a nature which would increase the value of the property. Nothing of a replacement nature or bettering expense or maintenance expense is charged in this account." (Transcript, p. 756.)

Mr. Homer Honeywell, Manager, in 1907, testified, referring to the construction account:

"This \$603,278 (shown in Exhibit E; Transcript, p. 253) includes all that has been paid out in constructing the gas plant, \* \* but it does not include replacing mains. We have an account called Main Maintenance in which that would be put. For instance, if you took up a 4-inch main worth 50c. a foot to us and laid down an 8-inch main that was worth \$1 to us, we would charge construction with the difference—50c. only. \* \* If the old main was entirely worn out and had to be replaced by an entirely new one, it would all be charged to maintenance. No part would go to construction at all." (Transcript, p. 138.)

Mr. Honeywell testified further on this subject:

"The item of \$603,000 invested in the plant did not cover any investment necessary for supplies on hand, and what has been termed working capital" (Transcript, p. 142).

The evidence is conclusive to the effect that the construction account does not represent all of the money invested by the company in the plant, or the net difference resulting from the difference in cost between the original equipment and the plant equipment in service in 1907. The record shows that in the early days of the Company, according to Mr. Wiggins' testimony, a large part of the construction was charged off every year (Transcript, p. 210), and that for one year nothing had been entered in the construction account (Transcript, p. 1253).

The evidence of plant cost shown in the construction account is not to be confused with the Master's criticism of expert testimony. The construction account, we submit, is a witness as to values derived from costs, which is a better guide to a correct result than the Master's findings on the valuation for 1907. The Master indicated that he was confused because the testimony of expert witnesses was irreconcilable, and we submit, that in that situation the actual expenditures of the company, representing the cost of the property, would have been a safe guide for the Master to have followed.

The result of his valuation for 1907, we assume from his valuation of 1913, includes the items of working capital, going value and twelve and one-half per cent. overhead, in addition to the values of the physical properties. The Master allowed \$60,000 working capital for 1913. Judge Munger allowed \$50,000 working capital in 1907. If we assume that \$50,000 working capital is included in the Master's \$436,565, then, to get a comparison between the Master's figure and the construction account, \$50,000 should be added to the \$589,887.84 in the construction account, which would result in \$639,887.84. The Master's valuation is more than \$200,000 below this figure, and if the twelve and one-half per cent. overhead and going value included in the Master's 1907 valuation are taken into account, it will be seen that the Master's figure for 1907 is practically \$300,000 below the construction cost entered in the construction account. If the Master had made a valuation of the physical properties separate and apart from working capital, going value and overhead, we could have a definite basis in comparing his valuation on physical properties with the record cost of the physical properties, but, in the absence of such segregation of statement from the Master, we can only reach a presumption based upon assumptions, as to how much of his total

figure represents physical property and how much represents intangible property.

The evidence here shows that in 1913, there was approximately \$767,000 of bonds of the Company and \$500,000 of three-year collateral trust notes outstanding, issued under authority and by order of the Railway Commission of the State of Nebraska. These obligations were secured by a mortgage upon the combined gas and electric properties of the Company, and the evidence shows that the electric properties of the Company were of a value between \$500,000 and \$600,000. The Company would be expected to put out securities covering the cost of new construction, and if the investment disclosed by the construction account is evidenced by the bonds and notes of the Company, then it would follow that before the investment cost was depreciated, some good reason should exist for its depreciation, because it would not only deprive the Company of the values in its properties, but it would also involve the impairment of its securities. The Court, in considering the fair rate of return upon the value of the Company's properties under rate legislation, considers of prime importance, that the rate should be sufficient to induce investments in the Company covering extensions and betterments of the property. In that situation, if the construction account shows the cost of the extensions and betterments, that amount should not be depreciated without good and substantial reasons. The City offered no evidence impeaching the construction account, but, on the other hand, caused an exhibit to be prepared by Mr. Wiggins showing the construction account, and offered the exhibit in evidence, so that it stands in this record as the evidence offered on behalf of the City.

Judge Munger, upon the former trial of this case, found the present value of the properties of the company, as of January 1, 1907, to be \$516,073.59, after

deducting \$49,688.17 for accrued depreciation. To this value, Judge Munger added \$50,000 for working capital, reaching a total value of \$566,073.59. The Company appealed from the judgment of the Court, claiming that the Court at that time had omitted certain properties and values which should have been included, as shown by the opinion of this Court, page 359:

Water gas apparatus, item of steam boiler...	\$2,225.00
Real estate and buildings—Reduction of real estate .....	3,200.00
Reduction of buildings and fixtures.....	12,643.00
Gas meter connections, reduced.....	6,780.00
Working capital, reduced.....	9,146.88
Organization expenses, reduced.....	21,950.00
Engineering (consequent on reduction of totals) .....	1,339.78
Contingent or overhead charges reduced....	22,884.00
Interest during construction, disallowed.....	39,050.00
Cost of obtaining money, disallowed.....	149,512.00
Going value and franchise, disallowed.....	100,000.00

The Court, in the course of the opinion, page 358, says:

"The valuation fixed by the Court is the main point of attack. That the company is entitled to a fair return upon the value of the property at the time of the inquiry is the rule."

And, further quoting:

"Upon all of these questions of valuation and of operating expenses there is much evidence, and much of it conflicting. The findings of the Court, as before stated, are of too comprehensive a character to be of much help in dealing with the details which are embraced."

And further, page 361:

"This case is full of difficult and grave questions.

Such conclusions as to facts as are found in the Court's opinion are not helpful when, as here, errors are assigned which open up substantially the whole case."

It is clear from the opinion of the Court that the Company upon the former appeal was complaining of the valuation fixed by Judge Munger, who had excluded certain items of property and certain elements of value, and the Company was insisting that those items and elements of value should be added.

The Master in this case included going value, which Judge Munger excluded, and reached a valuation with this element of value included, more than \$100,000 below the valuation fixed by Judge Munger. The opinion of this Court in the former hearing discloses that the City contended that Judge Munger's valuation was excessive as to two items, namely, the item of \$107,000 for gas services; and the item of \$50,000 for working capital (Opinion, p. 360).

Judge Munger, in valuing the property, gave a definite value for the different items of property entering into his total valuation, and gave the replacement cost and the amount of depreciation resulting in his depreciated value. The Master, in this case, gives the one figure, depreciated value. The Court indicated in the opinion reviewing Judge Munger's findings, that they were not sufficiently definite and in detail to enable the Court to review errors assigned against them, without going into the whole record. If that was the situation with respect to Judge Munger's findings and valuation of 1907, what is to be said about the Master's findings for 1907, which give the one figure only, depreciated value, and leaves the Court in the dark as to how much of that amount represents the value of the physical properties, and how much represents working capital or the intangible property, and how much the Master

depreciated the physical property to reach that value. When it is shown, as here, that the value reached by the Master, including working capital and going value, is approximately \$200,000 below the naked cost of the physical properties, as shown by the records of the Company, that valuation, in our judgment, should not be allowed to stand. It works a serious and grave injustice to the Company and to those who have invested their money in the Company's securities and properties.

The Master not only had before him the findings of Judge Munger as to the value of the Company's property in 1907, but he had the testimony of Mr. Malone, who was the Company's witness who inventoried and valued the property as of that date, showing a replacement cost of \$904,000, without including therein anything for going value or franchise. The record shows that Mr. Malone inspected and examined the property and inventoried it in 1907, and that he was a competent witness. The City attacked his valuation at the two points indicated in the Court's opinion in this case. The Master found a value of approximately \$500,000 below the value fixed by Mr. Malone.

After this case was reversed and referred to the Special Master, further testimony was taken, and a complete detailed inventory of the property was made, and a valuation arrived at as of January 1, 1913. Mr. Lea valued the property for the Company as of that date, and his valuation is corroborated by the records of the company, showing the cost of the things which he valued, and by the testimony of competent witnesses, among others, George L. Campen, former City Engineer, who valued the distribution system, and whose competency was not questioned; Mr. Steinmueller, who represented the Western Gas Construction Company, the concern that furnished a large portion of the gas equipment; and by contractors and

builders who had constructed the buildings upon the property. Mr. Lea's valuation for 1907 was derived from his valuation for 1913, and showed a reproduction or replacement cost as of January 1, 1907, of \$906,141, and the present value of \$784,682.

The City offered testimony from a witness who derived a value for 1907 from his figures and valuation for 1913. This witness' competency was challenged and assailed by the Company, and the evidence in this case shows that he was not a competent witness and nothing more than a student of statistics. In this situation and with this state of the record, the valuation of the Master standing against the construction account, showing in part the investment of the company in its properties, and against the valuation fixed by Judge Munger upon the former trial, and the valuation fixed by the Company's witnesses upon this trial, who were competent to testify, if so clearly contrary to the evidence, that it cannot be justified or allowed to stand.

## VI.

**The Master's valuation of the Company's properties, as of January 1, 1913, is unsupported by the evidence, and is clearly wrong.**

The Master found the present value of the Company's properties, as of that date, to be \$676,565, which includes \$60,000 for working capital and \$40,000 for going value, reducing his present value of the physical properties to \$576,565.

The construction account of the Company showed that the Company had invested in its physical properties, excluding working capital, going value, and twelve and one-half per cent. overhead used by the

Master, the sum of \$784,307.49, which leaves the Master's present value of physical properties \$207,742.49 below the investment cost to the Company of such properties. There should be added to the \$784,307.49, shown in the construction account, working capital, overhead and going value, which would place the investment cost of the properties, with these elements added, at approximately one million dollars. If this property is depreciated, in accordance with Judge Munger's finding upon the former hearing, in the amount of ten per cent., it would still leave a present value of \$900,000.

Mr. Wiggins, testifying for the City, said that the net amount charged to construction was \$784,307.49, after deducting all credits (Transcript, p. 1255).

Mr. Wiggins, when called in 1912 by the City, further testified with reference to his exhibit, showing the amount entered in the construction account between 1907 and 1912:

"In checking over the construction account the second time, I have checked back my own account and have found certain minor corrections which I have noted. Subsequent to 1907, I checked the large items in the construction account against the vouchers of the Company, and found it to be correct as entered in the books" (Transcript, p. 1253).

In the opinion of this Court in the Des Moines case, reported in 238 U. S., 153, it was disclosed that the value, fixed by the Master and sustained by this Court, of the physical properties was \$2,240,928. The Master, in the Des Moines case, found that the going value, in addition to the value of the physical properties of the company, was \$300,000. The valuation of the physical properties in the Des Moines case was not questioned or challenged in this Court by the City of Des Moines, but was accepted as a fair valuation of that property upon the appeal to this Court. The record in the Des

Moines case shows that it was a city of 98,000 people, and that the output of the plant was approximately 550,000 M cubic feet of gas per annum, whereas, Lincoln is a city, according to the record in this case, of 44,000 people, and with a plant output of 227,000 M cubic feet per annum in 1912. A valuation for the Lincoln plant of a million dollars in 1912, would compare normally with a valuation of two and one-quarter millions for the Des Moines plant in the same year; in other words, although the City of Lincoln is approximately half as large as the City of Des Moines, and the gas output of the Lincoln plant is approximately one-half of the output of the Des Moines plant, the Master's valuation in the Lincoln case was only one-quarter of the valuation of the Master in the Des Moines case.

Mr. Lea's Exhibit (Transcript, p. 2063) shows the reproduction cost of the Company's properties, at the close of 1912, to be \$1,258,461, and the present value of \$1,090,913. This valuation by Mr. Lea is corroborated and sustained by the Company's records showing the cost of extensions and equipment between 1907 and 1912, for which contracts were produced and vouchers showing the amount paid. In Mr. Lea's figure of present value is included \$225,000 for going value, as computed and determined by Mr. Lea, his computation being shown in detail in Exhibit 7, Subdivision K (Transcript, p. 1353).

In Subdivision IV of this brief, we have considered and discussed the reduction made by the Master in the going value of this property, and have pointed out, as we believe, the error made by the Master in reducing the amount of the going value from the amount shown in the evidence to the figure of \$140,000, and the further error in deducting \$100,000 of the \$140,000 from the value of the properties.

In the Master's valuation as of January 1, 1913, while he assumed to value the property by determining the net construction cost, in the first instance, to which twelve and one-half per cent. overhead was to be added, as we understand his report, in reaching the replacement cost, and from the replacement cost he deducted the accrued depreciation in reaching the present value. In his findings, however, in dealing with the properties as grouped in his report for the purpose of valuation, namely, real estate, buildings, works equipment and distribution system, he omits from his report and findings some one of the factors used by him evidently in reaching his value; so that it is difficult, if not impossible, to check out his present value from the assumed basis employed by him. With respect to buildings, he does not give (1) the net construction cost of any of the buildings; (2) nor the amount or rate of annual depreciation upon any of the buildings; (3) nor the age or assumed life of the buildings. The amount which the Master depreciated any building in order to reach his value, or the rate of depreciation, cannot be determined from his report. In this situation, in taking into account the testimony which is offered on behalf of the City and the Company, covering: (1) the cost of the buildings without overhead expense, or the net construction cost; (2) the reproduction cost, or the cost plus the overhead; (3) the age and assumed life of the buildings, each separately; (4) the accrued depreciation and the annual depreciation resulting in the present value, the testimony was complete, but the findings of the Master were incomplete on the necessary elements to be considered in the valuation.

With respect to works equipment, there were 73 separate items entering into this subdivision, and each of these items was valued by both the Company and

the City, giving the net construction cost, reproduction cost and present value, age, assumed life and rate of depreciation. The Master gave the reproduction cost and present value only of the combined 73 items, and as to the separate items, gave only the present value; so that from the Master's findings, in order to check out his valuation against the evidence and against the necessary factors to be considered in reviewing his findings, we find omitted: (1) net construction cost for each of the items; (2) reproduction cost; (3) accrued depreciation; (4) age and assumed life; (5) rate of depreciation.

With respect to the distribution system, the Master gave the total net construction cost and the present value, but did not give (1) the present value or reproduction cost of the properties going to make up the distribution system, or any of the subdivisions; (2) the accrued depreciation; (3) or the age or assumed life of any part or portion of the distribution system.

We submit that the directions of this Court for specific findings were ignored by the Master in the valuation as of January 1, 1913, and were completely ignored in his valuation of 1907, and all to the disadvantage of the Company in attempting to point out the errors of the Master in his valuations for lack of detail and information as to how his figures were reached.

The Company, in Exhibit 7, Subdivision (8) (Transcript, p. 1304), showed the age and assumed life, and the depreciation, computed on a straight-line basis, and on a sinking fund basis, for each piece of property involved in the valuation.

The Company, also, in Exhibit 425, Subdivision N (Transcript, p. 1384), submitted in detail the amount expended by the Company for repairs and renewals on each part of the Company's property, for each of the years from 1903 to 1913, inclusive. This detailed information was furnished by the Company in order that

the Master might comply with the orders and directions of this Court in making a valuation of the properties, and to enable the Court to check out and determine the accuracy of the valuations.

The net earnings of the Company for 1912, as shown by Mr. Lea at the \$1.00 rate, would have been \$21,817.73. Mr. Lea also shows the gross and net earnings of the Company for 1913 (Transcript, p. 2064), and in comparison with the earnings for 1912, are as follows:

	Full year, 1912.	Full year, 1913.
Gross Earnings for Gas Dep't. as Reported	\$282,162.11	\$273,595.52
Deduct Receipts from Gas Sales Outside Lincoln	8,986.18	8,471.35
Corrected Gross Earnings Gas Dep't.	\$273,175.93	\$265,124.17
Total Operating Expenses as Re- ported	\$175,573.49	\$183,436.77
Deduct Output Cost Gas Sold Outside Lincoln	1,873.62	2,471.92
	\$173,689.87	\$180,964.85
Add for Excessive Residual Credits as Reported	2,722.23	
Add for Depreciation (minimum shown by sinking fund calcu- lation)	20,865.03	20,865.03
Corrected Operating Expenses Gas Dep't.	\$197,277.13	\$201,829.88
Corrected Net Earnings Gas Dep't.	\$75,898.80	\$63,294.29

If the rate was reduced to \$1.00, it would result in a reduction of one-sixth of the gross receipts, or a reduction of \$44,187.36 from the gross earnings of \$265,124.17 for 1913, leaving gross earnings for 1913 at \$220,936.81, with operating expenses of \$201,829.88, leaving a net balance of \$19,106.93 at the \$1.00 rate. Deducting the 3% occupation tax on gross earnings at the \$1.00 rate or \$6,628.43, leaves \$12,478.50 of net earnings for the year 1913.

The result of this calculation illustrates the conclusions of the Master's findings upon the Company's continued operation. According to his own figures, the net earnings of the Company, in 1907, were \$22,349 (Transcript, p. 53), which he finds would be a return of 5.12% on his then estimated value of the company's properties; and, as we have shown, it would be a return of 4.5% if his mathematical error were corrected, and a return of 3.7% if \$100,000 of going value, which he found existed but deducted for reasons stated, were added to his 1907 valuation; or 2.8% if the values shown by the company were accepted. As against these net earnings in 1907, we have shown how the gross earnings fell off in the year 1913, as compared with the year 1912, and that the net earnings of the Company in 1913, according to the Company's figures, were but \$12,478.50, which, on the basis of the Master's 1912 valuation, is but a return of 1.8%; and on the basis of the Company's 1912 valuation, is but a return of 1.01%.

The Master endeavors to justify his conclusion by certain arbitrary eliminations from the expense account of the Company, which represented the Company's actual disbursements in the year 1912. The propriety of these eliminations we will now proceed to discuss:

**VII.****1912 Operating Expenses.**

It will be noted in the Master's criticism of the expenses of the Company for 1912, that he eliminated an expenditure actually incurred by the company of more than \$7,000 in the new-business department, on the assumption that the Company was not justified in making this expenditure, in order to either hold the business that it had, in face of competition by the electric companies, or to acquire new business. The expense for this item was \$19,692.64, in 1912. In 1904, as already indicated, the expense for this department was more than \$16,000. In 1913, the Company reduced this expense for this department to \$10,399.90 (Transcript, p. 2062), and the gross sales of the Company for 1913 dropped from 227,297,000 cubic feet in 1912 to 219,249,900 cubic feet, and the gross earnings from gas sales fell off from \$273,175.93 to \$265,124.17, and the net earnings from \$75,898.80 to \$63,294.29, at the \$1.20 rate (Transcript, p. 2062). If the Company, by the expenditure of money to hold its business, had not been able to increase its business, but had simply been able to hold what it had, in the face of competition from the electric service, which had practically driven the gas department from the lighting field, it would be no justification for the Court in eliminating the expenditure, or any part of it, if the Court were free to substitute its judgment as to how much should be expended by the company to hold its business, or to extend its business. The same rule would apply to any expenditures of the Company, and would result in a disallowance of money expended for equipment or extensions, where the Court might feel that the expenditure was not wisely made. We submit, where a company acting in good faith and under the direction of competent management, as indi-

cated in this case, that this Company was being managed by a skilled and competent manager, that the judgment in the expenditure of money, either for equipment or for holding or extending its business, should be protected and should not be eliminated from consideration without substantial and serious reasons for it.

The Master injected in his report a statement (entirely without warrant (as the record shows), which clearly implies that the Company disbursed large sums of money in new business, for the purpose of defeating this gas case Ordinance; that this implication of the Master's was quite without justification, is shown by the evidence in the record. The Company spent in its new-business department, between the years 1904 and 1913, the following sums of money:

1904.....	\$16,400.65
1905.....	15,919.73
1906.....	13,432.41
1907.....	13,394.04
1908.....	11,634.96
1909.....	14,019.36
1910.....	16,152.75
1911.....	18,985.52
1912.....	19,692.64
(Transcript, p. 1382)	
1913.....	10,399.90
(Transcript, p. 2062.)	

A brief analysis of this table will show how wide of the mark the Master was in his implication above referred to. It appears that the Company spent more money in 1904 than it did in any subsequent year until 1911. And yet there was no rate suit pending in 1901, the Rate Ordinance having been passed in November, 1906. During the years 1906 and 1908 the expenditures in the new-business department actually decreased from \$13,432.41 to \$11,634.96, during which years this rate suit was actually in litigation. Furthermore, it appears

that in 1908, while this suit was then in litigation, that the Company spent less money in its new-business department than in any year since the institution of the new-business department, except 1903, the first year of its institution. Also, there was expended in 1904, two years prior to the passage of the Rate Ordinance, more money than in any of the years in which the new-business department was in existence, except 1911 and 1912. And we have already shown the result of the decrease in 1913, as compared with 1912, the result being a falling off in sales and earnings. Furthermore, the City of Lincoln established an electric lighting plant in about 1907, and subsequent to 1911 entered the the commercial field, the result of which was that the new-business department had to bear the burden of the advertising necessitated by this competition. The unfairness created by this situation can be seen at a glance: The City is competing with a gas company in the lighting business, with its ability to pay its expenses out of general taxes, and at the same time in this rate case against the Company it objects to the Company's cost of advertisement, necessitated by the competition which the City had created.

In view of the above facts, can it be said that there is any justification for the Master's imputation to the effect that the Company deliberately dissipated its earnings in order to win this rate case? The serious effect of this trimming of operating expenses on the part of the Master can be shown by a simple computation. If we take the Master's figure of a 6% rate of return, and make a calculation on a 6% basis, it will be seen that every dollar which the Master eliminates from the Company's operating expenses is equivalent to eliminating  $\$16 \frac{2}{3}$  from the valuation of the Company's properties, so that an elimination of \$7,692 from operating expenses is equivalent to reducing the value of the Company's properties approximately \$120,000.

If this item of \$7,692 had been permitted to stand in the operating expenses of the Company where it properly belongs, then the net income of the Company for 1912, even on the valuation as found by the Master, with all the other adjustments in the operating expenses which the Master had made, would be less than 6%.

Another mathematical error which the Master made, this time in his 1912 figures, is the deduction of the salary of the Chairman of the Board of Directors (\$3,000) and the retainer of New York counsel (\$600). He deducted this entire amount from the operating expenses of the gas department of the Company, whereas, these salaries were apportioned between the gas and electric departments, and, if there was any deduction to be made at all, it only should have included that proportion of these salaries as applied to the gas end of the Company's business. The Master apportioned such of the operating expenses as were common to both the gas and electric department of the Company as follows: 73% to the gas department and 27% to the electric department. On this basis, instead of deducting \$3,600 for these two salaries, as aforesaid, he should only have deducted approximately, \$2,600, or \$1,000 less. If we deduct this additional item of \$1,000 from the 1912 net revenue of the Company, as found by the Master, it would reduce said net revenue to approximately \$38,000. On this basis, the rate of return which the Company would have earned in 1912, at the \$1.00 rate, on the Master's own findings, as adjusted, would only have been 5.6%, instead of 6.9%, as he finds. And if we add to the Master's 1912 valuation the \$100,000 of going value, which he found existed but refused to allow, the result, at the rate of return earned by the Gas Company in 1912, on the Master's own figures, as adjusted, would only be, at the \$1.00 rate, 4.9%.

In conclusion of the matters heretofore discussed, we submit herewith the results sought to be accomplished

by the City, and which will, in fact, be secured if the decision in this case is affirmed:

1. The value of the company's properties, as of January 1, 1913, will be definitely fixed at \$676,565.

2. The City will enforce refunds equal to the difference between the \$1.00 rate and the \$1.20 rate, for the period between January 1, 1907, and May 1, 1915. The amount of these claimed refunds, with interest to the time of the hearing before Judge Page Morris (approximately July 1, 1915), is as follows:

Year	Principal		Int. at 7%
1907	35,725.20	8 yrs.	20,005.11
1908	38,819.32	7 "	19,021.46
1909	40,648.72	6 "	17,072.46
1910	41,604.62	5 "	14,561.61
1911	44,445.62	4 "	12,444.77
1912	45,459.40	3 "	9,546.48
1913	44,047.54	2 "	6,166.66
1914	46,702.28	1 "	3,269.16
5 mos. 1915	18,916.64		
	<hr/> 356,369.34		<hr/> 102,087.71
			356,369.34
		Total	<hr/> \$458,457.05
Interest on 1915 refund at 2%			378.33
Interest on total principle from July 1st, 1915, to January 1st, 1916 (3½%)			12,472.93
Total principle and interest to January 1st, 1916,			<hr/> 471,308.31
Interest for years 1916 and 1917 (approximately \$25,000 per year)			50,000.00
			<hr/> \$521,308.31

3. The City will proceed with its attempt to collect its occupation taxes, which, for the years 1910 to 1913, inclusive, with interest and penalties through the current year, now amount to \$40,846. This figure does not include any claimed occupation taxes for the years 1914 to 1917, inclusive, and is attempted to be levied irrespective of general taxes, which, in 1912, as the record shows, were over \$15,000 per annum.

4. The City will proceed, with its municipal electric plant, to compete with the company in the lighting business, wherein the City levies a three per cent. occupation tax on the electric business of the company, and is free from that tax in its own service.

5. The City will proceed to press to judgment its suit to oust the company from the streets and public grounds of the City of Lincoln.

6. The City will then be in a position to push its plans for a municipal gas plant, and to that end, to force this company into such a position that the City can acquire its plant without compensation.

We submit that this array of facts and conditions, together with the established proof that the company never paid dividends, but used all its earnings in paying bond interest and operating expenses, and in making betterments, improvements and extensions to its property, demonstrates the utter confiscatory character of the ordinance in question.

# **LINCOLN GAS & ELECTRIC LIGHT COMPANY v. THE CITY OF LINCOLN.**

## **TABULATIONS SHOWING MASTER'S MATHEMATICAL ERROR IN DETERMINING COMPANY'S 1907 VALUATION.**

### **I.**

(1)		(2)	
Master's 1913 Valuation.....	\$676,565	Master's 1913 Valuation.....	\$676,565
Less Values added between 1907 and 1913.....	240,000	Less Values added between 1907 and 1913.....	240,000
1907 Value found by Master.....	<u>\$436,565</u>	1907 Value found by Master.....	<u>\$436,565</u>
		Depreciation which was going on in period interven- ing between 1907 and 1913, at \$10,000 per year, as found by Master .....	<u>60,000</u>
		Correct value, according to Master's figures, which he should have shown, instead of value in Table I	<u>\$496,565</u>

In calculating values from 1913 back to 1907, the Master (after deducting the values added in the intervening period) should have built up the 1913 value at the rate of \$10,000 a year, which was the rate he found the property to be depreciating annually in 1907.

### **II.**

If we use the Master's 1907 valuation of \$436,565 with his 1907 annual depreciation of \$10,000, the result is not in accordance with the Master's own 1913 valuation.

1907	1908	1909	1910	1911	1912	1913
436,565	426,565	416,565	406,565	396,565	386,565	376,565
All values, tangible and intangible, added to plant between January 1, 1907, and January 1, 1913, as found by Master..						<u>240,000</u>
Total.....						<u>\$616,565</u>

This result illustrates the Master's error, because his 1913 valuation of \$676,565 could not be arrived at if the 1907 valuation were only \$436,565, with his annual depreciation of \$10,000.

### **III.**

If we correct the Master's mathematical error, which brings his 1907 valuation up to \$496,565, and use his 1907 depreciation of \$10,000 a year, the result will be the precise figure of the Master's 1913 valuation, to wit, \$676,565.

1907	1908	1909	1910	1911	1912	1913
496,565	486,565	476,565	466,565	456,565	446,565	436,565
All values, tangible and intangible, added to plant between January 1, 1907, and January 1, 1913, as found by Master..						<u>240,000</u>
Master's 1913 Valuation.....						<u>\$676,565</u>

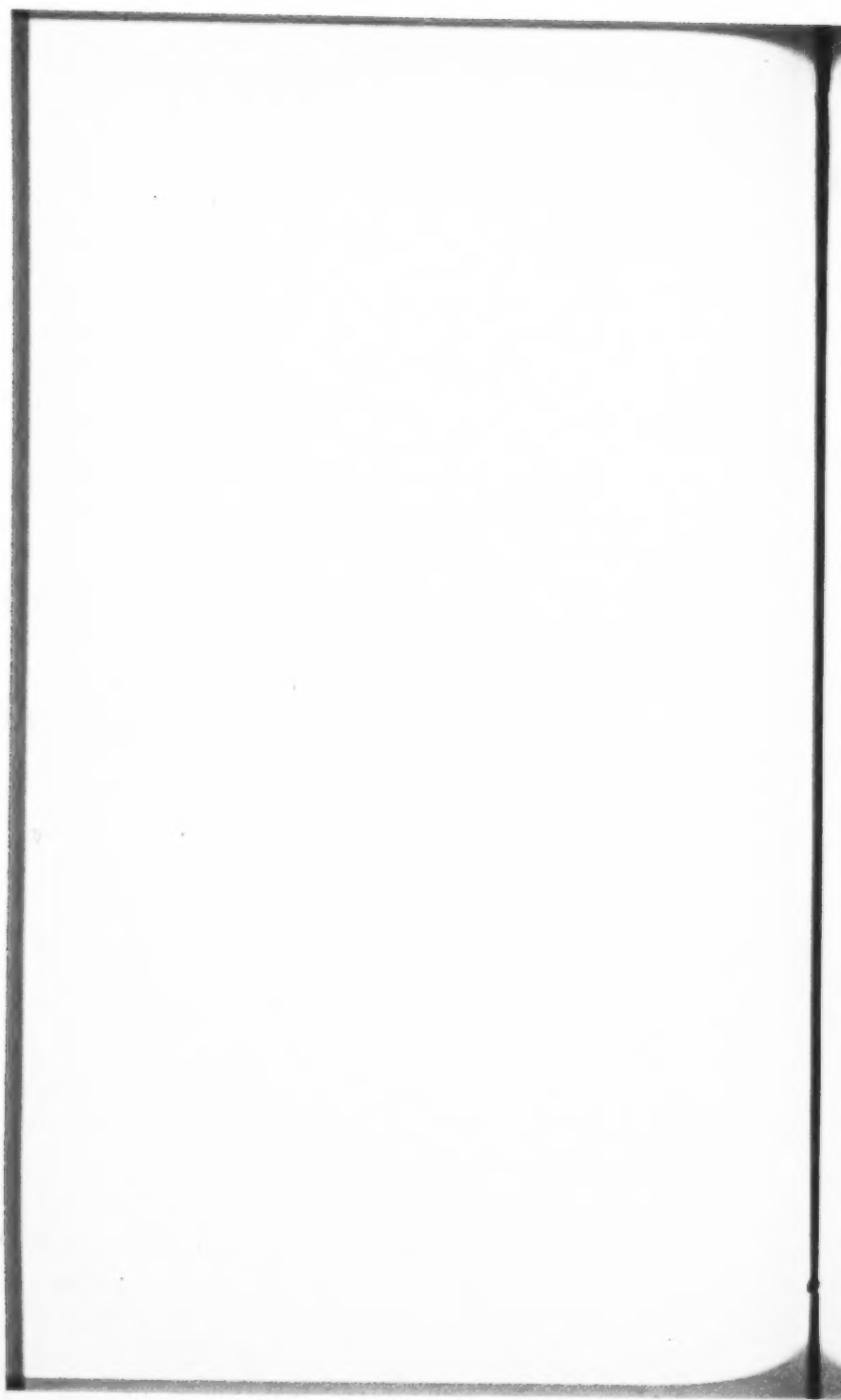
This shows that in order to arrive at Master's 1913 valuation, with the rate of depreciation in 1907, as fixed by Master, at \$10,000, he should have found the value of the Company's properties in 1907 to be \$496,565.

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## VOL. II.

## SUPREME COURT OF THE UNITED STATES.

LINCOLN GAS & ELECTRIC LIGHT COM-  
PANY,

Appellant,

*v.*

THE CITY OF LINCOLN, *et al.*,

Appellees.

October Term,  
1917.

No. 300.

**Discussion of the Evidence.**

In view of the fact that this Court, in its determination of the prior appeal of this case, remanded this cause to the Court below, to refer the case to a Master to make a full and complete report of his findings, based upon all the testimony which either side might present, and in view of the further fact that the Master has notably failed to do this, and this Court's instructions in that respect have been completely disregarded, we deem it not only useful, but imperative, to take up the various findings of the Master separately, and to analyze them in the light of the testimony which was introduced in respect of the various items of valuation, operating expenses and earnings. For this reason, we have prepared in this volume such an analysis, and here submit it for the consideration of this Court.

**Overhead Charges.**

The Master recognized the propriety of adding an amount for overhead charges to the net construction

cost of the Company's property in order to determine the reproduction value of said property.

In determining this amount, the Master said in his report, under the heading "Overhead Charges":

"Just what it should be, is the question about which there is much difference of opinion among engineers, courts and commissions. In this case, Mr. Lea puts it at 16 per cent and Mr. A. D. Adams at 7 per cent. The matter is not governed by any inflexible rule, but it is to be determined in every case by the exercise of good sense and sound discretion. The amount should be sufficient rather than liberal, especially where liberality might result in blotting out legislation, which, in the regulation of rates, is only required to stop just short of confiscation." (Transcript, p. 37.)

We beg to disagree with this general statement of the Master. The amount of "overhead charge" is to be determined by another element as well as "the exercise of good sense and sound discretion." That other element is *engineering experience*. That is, the determination must be based upon the experience of engineers skilled in the art and trade of constructing gas properties. And although the experience of such engineers does not fix, with precise certainty, the amount to be allowed for overhead charges, still we submit that the experience of such engineers completely fails to justify the estimated amount finally fixed by the Master, through the exercise, as he expresses it, of "good sense and sound discretion."

He says further:

"My judgment upon the matter is that an allowance of  $12\frac{1}{2}$  per cent on the total net construction cost of the physical property, excepting real estate and working capital, is sufficient to cover all overhead expenses, including engineering, superintendence, legal expenses, taxes, interest during construc-

tion, omissions and contingencies, casualty liability and whatever else is usually classified under this caption. This is necessarily an estimate based almost entirely upon expert testimony. No accounts were kept and no books, vouchers or other evidence produced showing with even approximate accuracy what expenditures were actually made and properly chargeable to this account. The value of the property has substantially increased by addition made to it in recent years, but the only means of ascertaining what the overhead charges on account of such additions were, is by the use of a more or less reliable hypothesis. Courts and commissions differ widely upon this question, and *while it may be that the percentage here allowed is not enough, the evidence will not convince me that it ought to be more.*" (Transcript, p. 38.)

Why does the Master choose  $12\frac{1}{2}$  per cent for overhead charges? It is impossible to tell from his report. He maintains a profound silence with regard thereto. He states Mr. Lea's estimate as 16 per cent and Mr. Adams' as 7 per cent. What induced the Master to pick  $12\frac{1}{2}$  per cent is a matter purely of conjecture. He says that the "evidence does not convince me that it ought to be more." What evidence? Whose evidence? What evidence convinced the Master that it should be as much as  $12\frac{1}{2}$  per cent? He may know, but he fails to specify in his report.

At the outset it is apparent that the Master has fallen into error when he compares Mr. Lea's 16 per cent with Mr. Adams' 7 per cent. These percentage figures do not purport to cover the same thing. Mr. Lea went very fully into the items which made up his overhead charge estimate. His estimate is made up of two distinct groups, which the Master evidently has completely lost sight of. The first is the item of 16 per cent, which includes:

"Engineering and supervision .....	6%
"Casualty liability .....	2%
"Taxes and loss of interest during construction, .....	4%
"Omissions and contingencies .....	4%
<hr/>	
"Total .....	16%

(Transcript, p. 1303.)

This he adds to the net construction cost of all physical equipment except real estate and working capital.

In addition to this 16 per cent. Mr. Lea estimates a sum in dollars to cover organization and legal expenses. The amount is \$33,000 (Exhibit "7A") which is made up of the following items:

"Preliminary investigation .....	\$ 3,000.00
"Preparing articles of incorporation, making and certifying abstracts, drawing and examining contracts and general retaining fee .....	7,500.00
"Salaries of manager and clerical force during construction (2 years) .....	18,000.00
"Incidental and traveling expenses (2 years) .....	2,500.00
"Rent and Stationery .....	2,000.00
<hr/>	
"Total .....	\$33,000.00"

(Transcript, p. 1300.)

This \$33,000.00 for organization and legal expenses is approximately 3 per cent. of the valuation of the property as fixed by Mr. Lea, which, added to the 16 per cent. for engineering, etc., would make a total of 19 per cent. for overhead charges. Mr. A. D. Adams estimates 7 per cent as sufficient to cover all of the items included in both these groups (Transcript, p. 1131). It is evident, therefore, that the Master should have set the 7 per cent. estimate of Mr. A. D. Adams against the 19 per cent., as the total overhead estimate of Mr. Lea.

Either the Master, through error, set the 16 per cent. against the 7 per cent. or he did so deliberately to make it appear that he finally selected a figure ( $12\frac{1}{2}$ ) which was nearer to Mr. Lea's than to Mr. Adams' estimate. Such, however, is not the fact, because Mr. Lea's total estimate for overhead was approximately 19 per cent., or, as he definitely states it, 16 per cent. for engineering, etc., and \$33,000.00 additional for organization and legal expenses.

What the Master actually decided in regard to the items of organization and legal expenses, which makes up Mr. Lea's total of \$33,000.00, is difficult to determine. He does not discuss that matter at all, except insofar as he determines that  $12\frac{1}{2}$  per cent. covers "overhead expenses, including engineering, superintendence, legal expenses, taxes, interest during construction, omissions and contingencies, casualty liability and *whatever else is usually classified under this caption.*"

To analyze Mr. Adams' estimate of 7 per cent. for overhead charges in a problem which we confess we are unable to solve. And apparently such was the case with Mr. A. D. Adams; for his testimony does not attempt to disclose any subdivision or application of any part of the 7 per cent. to any particular part of the engineering, legal or organization expenses. However, there was submitted by *counsel* for the City in the course of the argument a division of the 7 per cent. as follows:

"For engineering and supervision, including investigations, drawing and making contracts, clerical work connected with construction, plans, specifications and full supervision, 5 per cent.; for interest paid or lost on money for construction or on construction accounts up to the time when each part of the plant goes into use, one year being the period for completion of construction, 1 per cent.; and for

all other general costs incident to construction, including law, rent, stationery, insurance, clerical services, taxes, incidentals and omissions, 1 per cent."

But it is worthy of note in determining the weight to be attached to Mr. A. D. Adams' figure that in the course of the cross examination, which extended over a period of one week, Mr. A. D. Adams was requested practically every day, by counsel for the Company, for a subdivision or analysis of the 7 per cent., and for a specification of the proportions thereof, assigned or set aside for organization and legal expenses, for engineering, for interest during construction, for taxes, for casualty liability and for omissions and contingencies. It is evident that the 7 per cent. could not be made to cover these items of expense or overhead charges, if any attempt to subdivide the total figure of 7 per cent. had been made.

Mr. Lea testified that 6 per cent. for engineering and supervision was the current price among competent engineers, where engineers are appointed for preparation of plans and specifications, the taking of competitive bids and placing the contract and overseeing the construction and passing on the fulfillment of the contract; that the organization and legal expense, involved a preliminary examination by the engineer for a determination of the feasibility of the project and a survey of ground available for the plant and laying out and determining the distribution system; that the engineering service involved in the organization and legal expense, and in the engineering expense involved drawings of all the buildings, a large part of the works equipment and the distribution system, and calculations as to the kind and size of the pipe, pressure, etc., all of which required a great deal of time, practice, skill and ability; that casualty liability covered the item of insurance protection against

liability on account of damage claims and otherwise during the course of construction, and particularly while the streets were open and the public subjected more or less to the hazard of accidents; that the item for taxes and loss of interest during construction contemplated that it would require fully three years to complete the construction of the plant, and that in ordinary practice one-half of the interest is allowed on the investment for the full period of construction; that it was customary in construction work of this character, as well as other construction work to allow for omissions and contingencies; that construction expenses usually exceed the original estimate and in detailed inventories there are usually omissions (Transcript, pp. 398-400).

The record discloses that Mr. Lea was competent to testify with respect to such items and was qualified from actual experience in the construction and management of gas properties.

Mr. L. E. Wettling testified with respect to these items of overhead and disclosed in his testimony his knowledge and familiarity with the practice of Public Service Commissions and valuation bodies in determining the propriety and amount of such items, and disclosed qualifications to testify with respect to them; that it had been his duty in the service of the Nebraska State Railway Commission to make a study of and become fully informed with respect to overhead charges in properties of the kind involved here. Mr. Wettling testified that the inventory of materials in the composite plant would not necessarily reflect the cost of construction; that it is not practically possible to show all the materials necessary to be purchased and actually in the completed plant on an inventory; that in the ordinary course there are variations usually for omissions; that it is not possible to avoid the loss of materials by

breakage, accident or otherwise in the construction of a complete plant; that contingencies usually cover the loss of material, breakage of material, unforeseen accidents, unforeseen difficulties met in construction; that an allowance of from 3 to 5 per cent. for contingencies would be reasonable. Mr. Wettling called attention to the inventory submitted by the Lincoln Telephone & Telegraph Company to the Railway Commission, wherein it was specifically shown that in spite of the greatest care in the taking of the inventory, errors of omissions exceeding 5 per cent. of the total value were found. He also called attention to like omissions in the inventories submitted to the Railway Commission by telephone companies from York and Johnson Counties. That casualty liability is considered as a separate and distinct item and is an expense necessarily incurred in the construction of a plant; that the rates for such insurance run from 1 per cent. to as high as 5 or 6 per cent., and in some cases as high as 10 per cent., on the payroll; that the cost here would run from 4 to 5 per cent. on the payroll, and assuming the labor cost would constitute practically one-half of the entire cost of the plant, would amount from 2 to 2½ per cent.; that it is necessary in the construction of a plant like this to employ engineering skill and other supervision as the work progresses, and that no gas plant of any magnitude is built without such assistance from engineers; that preliminary work is to be done in the matter of surveying the field, determining the best location for the plant itself, the best location for the distribution system and general outline which involves a study of population centers in the particular place and in other places, and requires engineers who have specialized in that particular utility; that for engineering and supervision taken together the expense would be from 5 to 8 per cent., depending upon the difficulties and length of time required. That interest during

construction is one of the necessary items of cost and legitimate capital charge in the construction of the plant and by most regulating bodies and engineers, and is calculated at 6 per cent. per annum for one-half of the period of construction; that Courts and Commissions and engineers recognize and allow for expenditures involved in the organization of the company, the expenditures for making estimates and preliminary investigation, for obtaining money, securing franchise and promoting the enterprise; that these expenditures are sometimes included with the so-called overhead charges or expenditures in the group along with engineering, supervision, contingencies and interest during construction; that such expenditures are appropriate and necessary and are a part of the capital contribution, and are as necessary in a well-conducted and carefully planned organization as purchase of the machinery itself; that ordinarily it is necessary for the promoter to establish an office at the beginning of the construction in the community where the enterprise is being carried on and to surround himself with the necessary help to generally supervise and look after the work of construction, and to see that the work is prosecuted under the plans laid out by him (Transcript, p. 797 *et seq.*).

E. C. Hurd testified with respect to the so-called overhead charges, and testified that for the past five years he had charge of the valuation of utility property in this State as chief engineer for the Nebraska State Railway Commission; that he had constructed several hundred miles of steam railroad, 50 miles of electric railway, four separate electric light and power plants, two hydro-electric plants, and had taken part in the business management of electric property; had done work on gas plants, and particularly in an advisory capacity in the handling of property for bankers and brokers

interested in such properties; that he had valued the railroad properties and express company properties, in which was included almost every conceivable class of property; that he had valued the street railway property in the City of Lincoln and suburbs; that he was acquainted with the fundamental elements that enter into the cost of construction of utility plants; that the usual practice for engineers or valuers who are acquainted thoroughly with that class of work is to make an addition to the original fundamental item for omissions and contingencies. Mr. Hurd called attention to the fact of the inventory of the Missouri Pacific Railroad Company, submitted by the company as complete, and the omissions from such inventory discovered by his department in the valuing of the property of three important steel bridges; also to omission discovered by this department in checking the inventories submitted by the telephone Company, and stated that the Railroad Commission allowed 5 per cent. for contingencies and omissions. Mr. Hurd also called attention to the double tracking by the Union Pacific, where the materials were carefully checked and gone over as to the weight of rails and distance and the track fastenings, and where the conditions were ideal, but that upon rechecking after the work was completed, it was discovered that the amount of materials that were actually used was approximately 3 per cent. more than the amount found in the track.

With respect to the item of casualty liability, Mr. Hurd says that he never knew of an extensive construction that did not experience such an item; that the labor item in the construction of this plant would probably amount to from 1.8 per cent. of the total to 2 per cent. of the inventory value; that interest during construction is figured at 6 per cent. for one-half of the construction period, and that for the construction of a plant like this it would take something like two

and one-half years; that you might hurry the construction, but to do it on an economical and sensible basis would be cheaper in the long run; that hurried construction costs more than construction at a moderate rate, and that if you hurried your equipment and materials an additional charge would be made therefor; that it would be financial foolhardiness to erect the buildings all at once, with no respect to machinery, and then lay the mains all at once without respect to the possible consumer's situation; that to intelligently attack the proposition, as a whole, it would take about two and one-half years to successfully put in a plant and complete it in the most economical way; that a plant adroitly engineered should have as a general principle a greater efficiency value than a crudely constructed plant, and while the engineering cost might add somewhat to the capital at the beginning, such cost would afterward tend to reduce the operating expense; that the superintending factor is a larger one in the cost than the purely engineering (Transcript, p. 814 *et seq.*).

The testimony of Mr. Wettling and Mr. Hurd completely supports and confirms the testimony and estimates of Mr. Lea on his calculation of overhead charges. In many instances the figures given by Mr. Wettling and Mr. Hurd *exceed* the amounts designated by Mr. Lea for these items of expense.

It is not even contended by the City that Mr. Wettling and Mr. Hurd are not competent to speak as to these costs. Their qualifications are conceded. There are no men in this State better fitted from experience to testify as experts on the subject of costs than Mr. Wettling and Mr. Hurd. Mr. Lea's competency has already been stated.

As against the testimony of these three men, skilled and fully advised as they are, the City has introduced the testimony of one witness, Mr. A. D. Adams, whose

training as a gas or other engineer, and whose capacity for a full and fair statement of facts or opinions, we will hereafter discuss.

The clipping of approximately 12 per cent. on the overhead charges by A. D. Adams for the City at the very beginning of the valuation of the Company's property, is pursued consistently on each and every item of property possessed by this Company.

To demonstrate that the proposed 7 per cent does not represent a qualified honest judgment as to the cost for these items of overhead, we desire to call your Honors' attention to the amount allowed for such items of overhead by engineers and valuating boards and commissions, and to call your Honors' attention to the particular properties and the amounts allowed for such overhead and the amounts involved in such appraisements. The railroad properties of the state of Michigan were valued by Mortimer E. Cogley, Dean, of the engineering department of the University of Michigan, with his staff, and his valuation was approved by the Commission, and included an overhead charge on the railroad properties in that state of 21.2 per cent. The railroad properties of Minnesota were valued by Dwight C. Morgan, engineer for the Minnesota Railroad Commission, and his valuation was approved by the Commission and included for overheard charges 20.8 per cent. on the depreciated present value of the property. The railroad property of South Dakota was valued by Carl C. Witt, engineer for the Railroad Commission, and his valuation was approved, including overhead charges 16.3 per cent. on the depreciated present value. The railroad property of Wisconsin was valued by Prof. William D. Taylor, engineer for the Board, and his valuation was approved, including overhead charges in the amount of 16.5 per cent. on the depreciated value of the property. The surface railway properties in

the City of Chicago were appraised and valued for and under the direction of the City by Bion J. Arnold, Mortimer E. Cooley and A. B. DuPont, and there was allowed for overhead charges 21.7 per cent. on the inventory-reproduction cost. The Chicago gas plant was appraised and valued by the City for the purpose of rate regulation, and the amount allowed for overhead charges in the City's appraisal was 17 per cent. The Public Service Commission of Maryland, in appraising and valuing the Consolidated Gas, Electric Light & Power Company's property of Baltimore, allowed for overhead charges 21.39 per cent. of the physical properties, excluding land. The Validation Board of the State of Massachusetts valued and appraised the street railway properties in that state, and allowed for overhead charges 23 per cent. of the value of the physical property. The Public Utility Commission of New Jersey valued the Public Service Gas Company's property for rate making purposes, and in the valuation allowed for overhead charges 17.6 per cent. of the value of the physical properties. The Railway Commission of the State of Wisconsin, in October, 1913, prepared and submitted an estimate of the cost of municipal lighting plant for the City of Milwaukee, and in the estimate submitted fixed the overhead charges at 20.7 per cent. of the physical property, including land. The Nebraska State Railway Commission appraised and valued the Lincoln Telephone & Telegraph Company's property on June 26, 1913, in the matter of regulating rates and allowed for overhead charges 17.2 per cent. on the reproduction cost or 20.8 per cent. on the net construction cost of the physical property, including land. The Railway Commission of Michigan, on June 11, 1913, in appraising and determining the amount of overhead charges in the application of the Northern Michigan Power Company, and upon the report of

Prof. M. E. Cooley allowed for overhead charges 22.2 per cent. of the value of the physical property.

We present herewith the detailed statement of each of these cases and other cases where the overhead allowance was fixed, and which included the items involved in Mr. Lea's 16 per cent., and in the \$33,000 for organization and legal expense and the items involved in A. D. Adams' 7 per cent.

The Royal Railway and Canal Commission of Great Britain, on January 13, 1913, passed upon the value of the National Telephone Company's property in Great Britain, which was being taken over by the English Government, and there appeared before the Commission in that proceeding the most distinguished engineers in England and in this country. The transaction was of such importance as to insure the greatest care and the highest skill. The government of Great Britain was represented in the proceeding by its Attorney General and Solicitor General. The opinion in the proceedings was written by Justice Lawrence and concurred in by Hardy and Woodhouse, of the Commission.

Pending the hearing an agreement was reached between the representatives of the government and the National Telephone Company covering the fundamental costs, or, as known in this proceeding, the net construction cost of the physical equipment and properties, aggregating in amount 12,294,813 pounds sterling. This left in controversy the amount of the overhead charges and the amount of depreciation. The Postmaster General, who had direct charge of the proceedings for the government, contended that 17.76 per cent. was sufficient for the overhead costs. The telephone company contended that a larger per cent. was necessary to cover the items of overhead, and the Royal Commission, after an extended hearing and an exhaustive inquiry into costs of that nature, decided that there should be allowed

for all items covering overhead an amount equal to 31.4 per cent. of the fundamental agreed cost, excluding lands and buildings, and amounting to 3,217,671 pounds sterling.

Of this 31.4 per cent the Commission allowed for items covering engineering, supervision and administration of head office, district and local, 14.55 per cent for the cost of ordering and storing material, 2.61 per cent for interest during construction 4.53 per cent, being a total for these particular items of 21.69 per cent. These items correspond to the items included in Mr. Lea's allowance of 16 per cent, under the heading "Engineering, etc." Other allowances made by the Royal Commission involved in overhead charges were as follows: For obtaining way leaves, .97 per cent (being in the nature of right-of-way); for rents, maintenance, way leave payments, insurance until plant is revenue earning, 1.95 per cent, making the total of the last items of 2.92 per cent.

In addition to the items aggregating 21.69 per cent, above referred to, these last items correspond closely to Mr. Lea's item of approximately 3 per cent, or \$33,000 for organization, legal and other preliminary expense. In addition to the above items the Commission made further allowances for overhead costs as follows: For cost of obtaining subscriber's agreements, 1.46 per cent; for cost of obtaining money, 2.41 per cent, and for contractor's profit, 2.92 per cent.

The fundamental agreed costs upon which calculation was made for these allowances was 10,239,345 pounds sterling, and the allowances in pounds sterling and percentages were in detail as follows:

	£ Sterling	Per cent
Head office engineering and administration.....	560,806	5.48
Local engineering and supervision.....	660,732	6.46
District and local administration.....	267,759	2.61
Ordering and storing material.....	267,759	2.61
Interest during construction.....	463,426	4.53
Total of above group of items, 2,220,482 equals 21.69 per cent.		
Obtaining way leaves.....	100,000	.97
Rents, maintenance, way leave payments and insurance .....	200,000	1.95
Obtaining subscribers' agreements.....	150,000	1.46
Cost of obtaining money.....	247,189	2.41
Contractor's profits .....	300,000	2.92
Total allowance .....	3,217,671	31.40

Attention is called to the fact that in making these allowances for intangible values under the various heads the Royal Commission made deductions for depreciation on the items which it considered were subject thereto, and in making up its tabulation on which final judgment was allowed deduction was made from the fundamental agreed costs for depreciation and final judgment rendered for 12,515,264 pounds sterling. The total overhead and intangible charges included therein amounted to 3,217,671 pounds, and were 34.58 per cent of the depreciated value of the plant, including lands and buildings.

No doubt can exist in a transaction of this magnitude, involving the actual payment of approximately \$61,000,000, that an allowance of nearly \$16,000,000 for intangibles was not made without grave consideration for the actual necessity and propriety therefor.

The Commission had the benefit of the judgment and skill of the best engineers in reaching its conclusion and allowance of 21.69 per cent for the items practically corresponding with the items included in Mr. Lea's allowance of 16 per cent. It is not likely that, had the Royal Commission had the benefit of the judgment of

the City's expert in this case and a presentation of his 7 per cent for corresponding items that a different result would have been reached.

We do not feel that Mr. Lea's allowance of 16 per cent is subject to question or criticism in view of this high authority.

In this connection we also draw your Honors' attention to the fact that the Special Master in the Des Moines case allowed 15 per cent for the items directly corresponding to items covered by Mr. Lea's 16 per cent, and said:

After careful consideration of the case, it is my conclusion that 15 per cent *in addition to the cost of organization* is a fair and just allowance therefor. There is undoubtedly no absolute rule for the amount that should be allowed and care should be taken that they should not be made excessive. They should be reckoned on an economical basis." \* \* \* (182).

We wish to bring to the Court's attention certain actions and proceedings in which the calculation of overhead charges was treated and determined.

*In re Application Public Service Gas Co., Public Utility Commissioners of New Jersey*, reported in Vol. 1, page 433, of the Published Report of that Commission, the matter of overhead charges was considered and passed upon by the Commission.

The Public Utility Commissioners of New Jersey appointed Forstall and Robinson as engineers for the Commission to value the gas property of the Public Service Gas Company in the matter of the application pending before that Commission.

In the opinion on the matter of overhead charges the Commission say (451):

"To the estimate of bare cost there must be added certain allowances for expenditures generally called overhead charges. Forstall's appraisal includes a total allowance of 15.54 per cent; Randolph allowed 20 per cent; Stone & Webster 20.5 per cent; Bartlett & Hayward 20.4 per cent; Humphreys & Miller allowed approximately 21.7 per cent. Forstall, however, stated that an additional 2 per cent ought to be added to his allowance. This is best explained by quoting from the letter transmitting his appraisal to this board. It runs as follows:

"In these charges we cover only engineering and supervision, omissions, contingencies and interest during construction. We have taken engineering and supervision at 5 per cent, omissions, in view of the careful inventory at only 2 per cent, and contingencies at 2 per cent. The allowance for interest is based upon a period for and a progress of construction that would call for an average payment of interest at the rate of 6 per cent for one year on the total amount expended. It will be seen that the overhead charges applied do not include any organization expenses, liability for accidents and damages during construction nor taxes during construction. Without the value of the land and with the uncertainty as to the extent of the liability for accident under the existing law, we have not felt able to fix a definite percentage for the omitted items, but think they would amount to at least 2 per cent of the total before any overhead charges are applied.'

"Eleven per cent should, therefore, be added before computing the interest at 6 per cent, this making a total of 17.6 per cent.

"After due consideration we accept this figure as the fairest estimate for these allowances, and apply it in connection with each class of property" (452).

Nebraska State Railway Commission, on June 26, 1913, passed upon the application of the Lincoln Telephone and Telegraph Company for permission to establish temporary rates to be charged for service; application No. 1637.

In the decision in that case the Commission allowed 17.2 per cent for overhead on the gross reproduction cost which was the equivalent or 20.8 per cent of the net construction cost. The Commission in the decision says:

"The taking of testimony developed considerable controversy with regard to the question of general expense items entering into the values, and this controversy was apparently founded on the suspicion that the amounts allowed for general expense, or so-called overhead items, was excessive. The commission is convinced that the amount of 17.2 per cent for general expenditures allowed by our engineers is conservative, particularly in view of the manner in which they have built up their unit cost. It is generally in line with the accepted percentages and theories of commissions and regulating bodies of other jurisdictions, many of which allow over 20 per cent for these items. In the case of the taking over of the telephones of the Kingdom by the Crown, the commissioners in Great Britain allowed for this item 26 per cent.

"Various commissions, as well as many of the prominent engineers of the country, apply the general expenses in this way, others include or conceal such expenditures in the units of costs, thereby producing apparently smaller percentages for overhead expenses, and when so treated in a valuation there will be apparently no general charges whatever. In other cases part of the general expense are applied to the unit price and another part is set up as general expense, which thus makes it appear as though a lower ratio of general expense had been applied in the valuation. Thus in the case of Wisconsin, which during the hearing was quoted as allowing only 12 per cent, it is found that the commission does in fact allow as much as 15 per cent for the so-called overhead items, and that as much as 10 per cent in addition is first applied to the units, thus bringing the range of allowances, depending upon the particular utility under con-

sideration, from 19 to 25 per cent. We quote from an address delivered in Chicago, March 24, 1913, by Mr. Commissioner Halford Erickson:

"'As to overhead expenses, that is also a matter, I think, that is not quite understood. The Wisconsin Commission in the case of small utilities allows 12 per cent. In the case of large utilities where they have a great deal of difficult city work to do, crossing rivers and work of that kind which often involves considerable risk, we allow 15 per cent. That however, is the figure which is apparent, which is visible in determining the unit price upon which to compute the cost of the various items or elements. We nearly always allow 10 per cent for contractor's profit. This is an element which entered into the cost as a whole and is not given separately. However, if that were taken out of the unit prices where it appears, and added to the 12 per cent, that figure would be considerably increased. It might not add 10 per cent to that figure, but it probably would add 8 per cent or 7 per cent, sometimes 9 per cent, so that the overhead expense used by us is considerably higher than 12 per cent. We have explained that on several occasions, but it appears perhaps that our practice is not quite understood.'"

*In re Application of the Northern Michigan Power Co.* for authority to issue stocks and bonds, reported in the Railway Commission Reports of Michigan for the year 1913, decided June 11, 1913, D. 626.

In this case application was made to the Railway Commission of Michigan for authority to issue stocks and bonds. The Commission referred the engineering matters involved in the application to Prof. M. E. Cooley, Dean of the engineering department of the University of Michigan, and to Profs: Riggs and Anderson. Profs. Riggs, Cooley and Anderson made a report finding the value of the tangible property and providing for the overhead charges for which an allowance of 22 per

cent of the tangible value was made. The Railway Commission, in passing upon this report and upon the application of the opinion, says:

"For the purpose of checking the estimates for the construction of the physical property the Commission has submitted the appellants' petitions and engineering data to Profs. Cooley, Riggs and Anderson of the University of Michigan, who have submitted a comprehensive report which has been added to the record. The computations made by these gentlemen are based upon a thorough examination of the plant, maps, and field notes of petitioning Company, as well as on such data obtained by these gentlemen in the supervision of work of like character in other portions of this and adjacent territory. The summary of the report as respects physical value shows the following:

- "1. Land and flowage rights (assumed as valued by promoters of the enterprise..... \$2,565,000
- "2. Construction based upon independent estimate... 4,275,701
- "3. Overhead charges, including contingencies, engineering, organization, interest during construction, working capital, stores and supplies..... 1,520,396
- "Total overhead charges.....22.2 per cent."

In *Bachrach v. Consolidated Gas, Electric Light and Power Company of Baltimore*, reported in the Published Volume Public Service Commission of Maryland, vol. 4, page 39, decided in 1913, the Commission had under consideration the matter of overhead charges in valuing the Consolidated Gas Company's property.

The Commission in the opinion says:

"The item for preliminary organization includes: Time and expense in securing organization; (2) Cost of obtaining capital; (3) Interest on and during construction; (4) Cost of Consolidated Gas and Electric divisions:

"For the gas division the allowance is \$1,949,748 or 12 per cent, of the total value; 18.36 per cent. of the land and structures and 21.22 per cent. of the

structures alone. In the electric division the allowance is \$1,434,672 or 12.68 per cent. of the total value. For the two divisions the allowance is \$3,284,442 or 12.35 per cent. of the total value; 19 per cent. of the land and structures and 21.39 per cent. of the structures alone.

"The allowance for overhead expenses as above indicated was \$3,384,422 or 21.39 per cent. of the value of the structures alone" (50-52).

*Des Moines Water Co. v. City of Des Moines.*

	Amount	Percent of Inventory Cost
1. Engineering, superintendence, contingencies, general and legal exp.....	\$116,928	8
2. Interest during constr.....	116,928	8
	<hr/>	<hr/>
	\$233,856	16

Whitten, sec. 246, p. 221.

**Massachusetts Street Railway Valuation by Validation Board:**

1. Engineering 5 per cent. of physical cost of reproduction	5
2. Contingencies 5 per cent. of physical cost of reproduction .....	5
3. Legal and general expenses 3 per cent. of physical cost of rep. ....	3
4. Interest 6 per cent. of physical cost of reproduction plus the above, or about 7 per cent. on the physical cost of reproduc.....	7
5. Commissions for marketing securities 3 per cent. of physical cost of reproduction.....	3
	<hr/>
Making total of about 23 per cent. of physical cost of reproduc. ....	23

Whitten, sec. 248, p. 223.

**Massachusetts Validation Board, 1911, *in re Appraisal of N. Y., N. H. & H. R. R. Co.*:**

1. Engineering 5 per cent. on total cost; excepting the land and equipment.....	5
2. Contingencies; 5 per cent. on total cost, excepting land and equipment .....	5
3. Legal expense—1 per cent. on total, excepting land and equip. ....	1
4. General expenses; 1 per cent. on the total, excepting land and equipment and 3 per cent. on cost of land..	1.2
5. Interest and commissions, 12 per cent. on the total cost, inc. land, but excl. equip. and inc. eng., conting., legal and gen. exp.....	12
Total.....	24

Whitten, sec. 249, p. 225.

**Michigan Railroad Appraisal 1900-1901 (work in charge of Prof. M. E. Cooley):**

	Percent of Inventory Cost
1. Engineering .....	3.2
2. Contingencies .....	10.8
3. Legal expenses .....	.4
4. Interest during construction.....	3.1
5. Organization .....	1.5
Total.....	19
In this appraisal the reproduction cost, less depreciation was also determined. The overhead charges amounted to 21.2 per cent. on reproduction cost, less depreciation	
Inventory—reproduction cost .....	\$170,291,556.00
Overhead charges .....	32,424,706.00

Whitten, sec. 251, p. 227.

### Minnesota Railroad Appraisal, 1908:

Inventory—reproduction cost .....	\$345,260,418.73
Overhead charges .....	61,264,764.84

	Amount	Percent of Inventory Cost
1. Engineering, superintend. and legal exp..	\$12,133,641.89	3.5
2. Contingencies .....	17,869,703.02	5.2
3. Interest dur. const.....	31,261,419.93	9
	<hr/>	
	\$61,264,764.84	17.7

In this appraisal the reproduction cost less depreciation was also determined, but the overhead charges were not depreciated. The overhead charges amounted to 20.8 per cent. on the inventory-reproduction-cost-less-depreciation .....

20.8

Whitten, sec. 252, p. 228.

### South Dakota Railroad Appraisal, 1910:

Inventory-reproduction cost .....	\$93,609,443.00
Overhead charges .....	12,885,060.00

1. Engineering, superintendence and legal exp. ....	\$3,645,811	3.9
2. Contingencies .....	5,349,039	5.7
3. Other expenses .....	972,552	1
4. Interest dur. construction.....	2,917,658	3.1
	<hr/>	
Total overhead.....	\$12,885,060	13.7

In this appraisal the reproduction cost less depreciation was also determined, but the overhead charges were not depreciated. The overhead charges amounted to 16.3 per cent. of the inventory-cost-less-depreciation.....

16.3

Whitten, sec. 257, p. 232.

**Washington Railroad Commission, 1910, in re Valuation of Puget Sound Electric Railway Company:**

Inventory-reproduction-cost .....	\$3,177,768
Overhead charges .....	499,517

	Amount	Percent of Inventory Cost
1. Engineering and superintendence.....	\$ 53,336	1.7
2. Fiscal and physical superv. and management	186,955	5.9
3. Contingencies .....	96,266	3
4. Legal and general expenses.....	17,779	.5
5. Interest during construction.....	145,181	4.6
<b>Total overhead.....</b>	<b>\$499,517</b>	<b>15.7</b>

In this appraisal the reproduction cost less depreciation was also determined, but the overhead charges were not depreciated. The overhead charges amounted to 19 per cent. of the inventory-reproduction-cost-less-depreciation 19

Whitten, sec. 259, p. 235.

**Wisconsin Railroad Appraisal (made by Prof. Wm. D. Taylor for and adopted by Wisconsin State Board 1903):**

Inventory-reproduction-cost .....	\$179,223,284
Overhead Charges .....	23,692,921

	Amount	Percent of Inventory Cost
1. Engineering, superintendence and legal expense .....	\$6,253,188	3.5
2. Contingencies .....	9,857,280	5.5
3. Interest during construct.....	5,376,698	3
4. Organization .....	2,205,755	1.2
<b>Total overhead charges.....</b>	<b>\$23,692,921</b>	<b>13.2</b>

In this appraisal the reproduction-cost-less-depreciation was also determined, but the overhead charges were not depreciated. The overhead charges amounted to 16.5 per cent. of the inventory reproduction-cost-less-depreciation 16.5

Whitten, sec. 261, p. 237.

**Appraisal of Chicago Surface Railways, 1906 (by Bion J. Arnold, Mortimer E. Cooley and A. B. DuPont):**

The appraisal was made under the authority and di-

rection of the City of Chicago, and as a basis the franchise settlement ordinances passed February 11, 1907.

Inventory-reproduction-cost .....	\$19,629,395	
Overhead Charges .....	4,259,190	
		Percent of
		Amount Inventory Cost
1. Organizing, engineering and incidentals....	\$2,295,121	11.7
2. Legal exp., int., brokerage and contin- gencies .....	1,964,069	10
Total overhead.....	\$4,259,190	21.7

Whitten, sec. 241, p. 213.

**Appraisal Chicago Gas Plant, 1911, *in re Regulation of Gas Rates* (Appraisal by the City of Chicago):**

For the second period of construction allowances were:

1. Interest during construction.....	5
2. Engineering, supervision .....	5
3. Organization and legal.....	2
4. Contingencies .....	5
Total.....	17

For the first Construction period allowances were:

1. Interest during construction.....	6
2. Engineering and supervision.....	5
3. Organization and legal expenses.....	3
4. Taxes .....	1
5. Contingencies .....	7
Total.....	22

Average for entire period, 17 per cent., except on land 12 per cent., and in addition to these allowed 6 per cent. for discount on bonds.

Whitten, sec. 243, p. 217.

***Mayhew v. Kings County Lighting Co.*, 2 P. S. C., 1st D., N. Y.:**

The following tabulation shows the overhead charges allowed in this appraisal made by the Commission in the matter of fixing the rate for gas:

Inventory-reproduction-cost .....	\$2,211,628
Overhead Charges .....	601,149

Percent of  
Amount Inventory Cost

1. Contractors' profits, engineering and admin- istration, conting. and incid.....	\$341,149	15.4
2. Preliminary and devel. expenses.....	260,000	11.7
Total overhead charges.....	\$601,149	27.1

Whitten, sec. 255, p. 230.

**Wisconsin Railroad Commission, in re Estimate of  
Cost of Municipal Lighting Plant for City of Milwaukee:**

Made for the city October, 1913, and set out in full in October number  
of Public Service Regulation, page 526.

1. Physical properties .....	\$1,237,067	
2. Overhead:		
(a) Omissions .....	\$ 61,853	5
(b) Engineer, sup., contin. and c.....	194,838	15.7
Total overhead.....	\$256,691	20.7

See also:

*State Journal Printing Company v. The Madi-  
son Gas & Electric Light Company, 4 W. R. C.  
R., 501.*

*In re City of Beloit v. Beloit Water, Gas and  
Electric Company, 7 W. R. C. R., 237.*

*In re Oshkosh Waterworks Company, 13 W. R.  
C. R. (decided September 27, 1913).*

**SUMMARY OF PRINCIPAL VALUATIONS NAMED ABOVE AND  
SHOWING ALLOWANCES FOR OVERHEAD CHARGES.**

**STEAM RAILROADS**

	Gross	Overhead	Percent
Michigan* .....	\$152,715,000	\$32,425,000	21.2
Minnesota* .....	294,525,000	61,265,000	20.8
South Dakota .....	93,609,000	12,885,000	16.3
Wisconsin .....	202,910,000	23,693,000	16.5
Massachusetts .....	299,970,000	40,334,000	15.5

\*Present Value.

Average of Overhead, 19.5%

**OTHER PUBLIC SERVICE UTILITIES—OVERHEAD  
ALLOWANCE.**

Des Moines, Ia.—Gas Company.....	15
New Jersey—Gas Company.....	17.6
Maryland—Gas Company .....	21.39
Chicago—Gas Company .....	17
New York—Gas Company.....	27.1
Des Moines—Water Works.....	16
Chicago—Surface Railways .....	21.7
Washington—Electric Railways .....	19
Massachusetts—Street Railways .....	23
Massachusetts—Steam Railways .....	24
Nebraska—Telephone Co. ....	20.8
Wisconsin—Electric Light .....	20.7
Great Britain—Telephone case.....	31.4

The total value in the cases cited above exceeds one and one-half billion dollars, and the average allowance exceeds 20 per cent.

In this connection it must be borne in mind that the percentage of overhead allowances inclines to a reduction in large properties and is usually somewhat below the necessity for such allowances in smaller properties. The reports of the Public Utilities Commissions and the Courts are full of other cases which might be cited in support of our contention in this matter, but we feel that it is unnecessary to burden the Court with further discussion along these lines or the citation of many other decisions.

Attention is also called to the fact that the decisions cited are not those of any one body nor of one particular class of corporations, but cover a wide field both as to class of utilities and as to location; they are of sufficient importance to insure that the conclusions have been arrived at conservatively, after due deliberation and great care, and the consideration of these cases should be convincing proof that the percentage for overhead claimed by Mr. Lea is extremely conservative and not subject to criticism.

It was shown during the trial by Mr. Wiggins, the City's witness, that the actual construction cost to the company up to the first of January, 1913, was in excess of \$784,000, and his testimony in this and the former hearing disclosed that some extensions and betterments made prior to 1890, in the earlier years of the history of the plant were not included in the construction account. His testimony was not questioned by any one except only inferentially by A. D. Adams, when he submitted his estimate of values, utterly ignoring actual costs. If we accept the testimony of Mr. Wiggins as a basis for construction cost of the plant and make calculations thereon for the item of interest during construction alone, conservatively estimated at a minimum period of one and one-half years, and apply thereto the current rate of interest of 6 per cent., this item alone would amount to \$35,280.00, and would exceed the total allowance by A. D. Adams for interest during construction, engineering, contingencies, and all other items of overhead charges by \$8,120.00.

On cross examination (Transcript, p. 1132) A. D. Adams said he made little or no allowance for taxes during construction, because they could or in all probability might be "dodged," but as we view this matter these expenditures are necessary and inflexible as fate; the items above enumerated alone equal \$52,460.00, or \$25,300.00 more than the total allowance of A. D. Adams. He concedes the necessity for all items, but after having expended \$25,300.00 more than his gross allowance for the items named, where shall we look for funds to defray the equally and concededly necessary expenses for—

- (1) Legal expense of organization, preparation of articles of incorporation, franchises and legal advice;
- (2) Rent, stationery, clerical services and incidentals;

(3) Preliminary investigations, surveys, engineering plans, plats, specifications, preparation of contracts, and promotion;

(4) Engineering, supervision, administration and clerical services during construction, as well as rents, stationery and supplies;

(5) Omissions, contingencies and incidentals.

A. D. Adams does not claim to set up this estimate for overhead charges by reason of actual experience and knowledge acquired in the practical prosecution of gas plant construction or the gas business, but bases his knowledge solely upon his study and analysis of the reports and records lodged with the authorities of the Commonwealth of Massachusetts. A casual reference to those reports unequivocally discloses the fact that the authorities of the Commonwealth of Massachusetts allow for overhead charges, percentages in excess of those claimed by Mr. Lea, so that if, as Mr. Adams claims, his knowledge was derived from a study of these said reports, he is not giving us the benefit of his knowledge acquired through them, or he has deliberately ignored them in arriving at his alleged conclusions in this case in order that in his zeal for his client he might better serve his own interests.

Now, in the face of all the testimony heretofore recited and the authority quoted from, we beg to inquire how any one can justify the Master's findings of 12½ per cent. for overhead charges. We can not help concluding that he must have been influenced by the grotesque estimate of Mr. A. D. Adams. The Master does not say he was so influenced, but he fails to state why he did not estimate 19 per cent. on the one hand or 7 per cent. on the other, or why he eventually settled on a figure approximately midway between.

We respectfully submit that the Master erred in determining that 12½ per cent. was the proper allowance for overhead charges.

### **Real Estate.**

The Master states in his report that he has valued all the real estate of the Company in the City of Lincoln actually or constructively used in its gas business. There is scarcely any escape from such a conclusion, for there would be no merit whatever in disallowing the value of land which is not now in immediate use, but which was purchased by the company in the exercise of its sound, honest discretion for future needs or other purposes.

As to the estimated value of the land, the Master first says:

"Upon this property, Henry I. Lea, the gas engineer, who made the general appraisalment for the company, placed a valuation of \$19,320.00" (Transcript, p. 38).

This statement is not quite true, so for the sake of accuracy it may as well be corrected at once. Mr. Lea named the figure quoted by the Master to cover *all* the real estate connected with the company's gas business; but for the real estate situated in the City of Lincoln, his estimate was \$18,520.00, which excluded two lots in Havelock, valued at \$800.00.

The Master continues:

"This figure was fixed upon by Mr. Lea after inquiry among real estate dealers and others having knowledge of land values in and about Lincoln. Its substantial correctness is vouched for in detail by other witnesses testifying on behalf of the company. On the other hand, Mr. A. D. Adams, consulting gas engineer, testifying for the City, fixed the value of Lots '1' to '12,' inclusive, Block '79,' which the City claims is the only real estate devoted to the gas business, at \$2,625.00" (Transcript, p. 38).

It is not of place to remark at this point that for the very piece of property which Mr. A. D. Adams, the City's expert, values at \$2,625.00, the experts for the company gave the following value: Lea, \$11,000.00; Purbaugh, \$13,600.00; Green \$12,000.00; Culbertson, \$14,400.00; Reed, \$11,569.00. As to the qualifications of these witnesses, we beg to refer to our discussion of that subject in Vol. III of this brief.

Continuing in his report, the Master makes some statements which, though unimportant at first glance, are, we submit, of tremendous significance in determining the merit of the Master's conclusions in this case. He said:

*"This estimate (referring to the City's estimate of \$2,625.00) though obviously too low for the lots embraced in it, is supported to a considerable extent by witnesses for the City. The local witnesses were all men of fair intelligence, evident candor and qualified by observation and experience to give evidence entitled to serious consideration. In circumstances of this kind there is, of course, no means by which a court can with precision lay its finger on the truth. The most it can do, in the light of the opinions given by others, is to express an opinion of its own. In my judgment, \$16,250.00 is a fair allowance to the plaintiff for all of the real estate which it claims is devoted to or properly chargeable against the gas business" (Transcript, p. 38).*

Let us analyze this situation a little more closely, for we claim that it is most significant and enlightening. The Master finds that Mr. A. D. Adams's estimate is *"obviously too low."* In other words, the Master himself, although knowing nothing about the value of real estate in Lincoln, and basing his statement solely on the evidence, says that Mr. A. D. Adams's estimate is *obviously too low*—that is, the fact that the figure is too low is *easily apparent, readily discernible*, even to a

casual observer. *Obviously*, then, Mr. A. D. Adams knows nothing about real estate values in the City of Lincoln, or he would not have given an estimate which is so apparently without merit. But another very significant fact is, that the estimate, although obviously too low, "is supported to a considerable extent by witnesses for the City." Stated in another way, the Master says that the City put four witnesses on the stand *as experts*, who *supported* a real estate *value* which was *obviously* too low, even to the Master. Now, what weigh would the normal, sensible person—the average prudent man—give to the opinion of a so-called real estate expert who attempts to sustain and give an opinion under oath as to a valuation which is *obviously* too low? His conclusion would immediately be that the alleged expert was either dishonest or ignorant about real estate values. In either case further consideration of the alleged expert's opinion would be dismissed with scant ceremony. But the Master says that "the local men (which phrase includes the City's so-called experts) were all men of fair intelligence, evident candor and qualified by observation and experience to give evidence entitled to serious consideration." This means that the Master concludes that the City's real estate witnesses, who were the men attempting to support, under oath, the estimate which was obviously too low, were considered by the Master to be "qualified by observation and experience to give evidence entitled to serious consideration." Here is the only place in the Master's report where he gives a faint suggestion (in general terms, to be sure) of his judgment concerning the weight to be attached to the testimony of persons who testified before him as expert witnesses. And he states that the City's witnesses on this subject—although they gave opinions supporting a value which was, even to the Master, obviously too low—gave "*evidence entitled to serious consideration.*"

But there is still further significance to the Master's statement above quoted. It will be noted that the City's witnesses on real estate gave an estimate on only a fraction of the Company's real estate. These pieces of real estate are known as lots "1" to "12," block "79." And this was the estimate of \$2,625.00, which the Master says was obviously too low. The City's witnesses did not attempt to give estimates on the remainder of the Company's real estate. Their one estimate, therefore, was summarily dismissed by the Master. It was too low, obviously. To all appearances their opinions and estimates were thrown out of the calculation, or if they were not, they ought to have been. The result is just this—there was no evidence on real estate values before the Master, entitled to consideration, except the Company's witnesses. Their estimates of all the Company's lands devoted to the gas business in Lincoln were: Lea \$18,520.00 (Transcript, p. 557), Purbaugh \$19,030.00 (Transcript, p. 561), Green \$17,600.00 (Transcript, p. 559), Culbertson \$18,390.00 (Transcript, 560).

The Master estimates the Company's real estate at \$16,250.00. Where did he get that figure? He doesn't say. We cannot even guess. It was not from the estimates given by the Company's witnesses. Manipulate as you will, the estimates of Messrs. Lea, Purbaugh, Green, Culbertson and Reed, you cannot arrive at a conclusion of \$16,250.00. Now the estimates of the Company's witnesses were the only ones before the Master for him to pick from. The values given by the City's witnesses were dismissed from the calculation as obviously too low. There was nothing left for the Master to choose from except the estimates of the Company's witnesses. It is true that their values were not conclusive on the Master as a matter of law, but as a matter of common reason and fairness, some one of those five values should have been adopted; unless by chance the Mas-

ter had some reason to believe they were all too high. But he does not say so in his report. He gives no reason for lowering their estimates; no reason why their estimates were not deemed reliable. But the most mysterious phase of the matter is to determine how the Master calculated the figure, \$16,250.00.

To be frank, we do not think he did calculate that figure. We think he merely picked it out at random.

Now we have gone into this matter of real estate valuation rather fully in spite of the fact that the difference between the Company's estimates and the Master's finding is comparatively small in dollars and cents—a matter of two thousand dollars odd. But we see well illustrated in this finding of the Master a well defined tendency which runs through the length of his report, to base his estimates on no figure submitted in evidence, but merely to reach out haphazard somewhere between the respective valuations of the Company and the City, pick a figure and write it down as a final valuation in his report. And all this without suggesting in his report the faintest hint of his reasons for adopting his specific value as against the estimate of the Company on the one hand, or the City on the other (except that in the matter of real estate valuation he does say that the estimate of the City's witnesses was obviously too low); and he never once attempts to make a statement of the basis of his calculation.

This suit is a serious matter for the Lincoln Gas & Electric Light Company. It claims that its properties are being confiscated. It has its day in court and before it is dismissed thence, it has a right, in all fairness, to ask the reason. It has used painstaking care to present to the Master in this case the best opinions as to gas properties and operation which it can obtain; it has toiled laboriously and expended much time and money to place before the Master *all the facts and all the rea-*

sons upon which it bases its estimates. Now if the opinions of its experts are not accepted, or if the facts it presents are held not to sustain its conclusion, it has a right, and it demands to know, the reasons. The Master's report fails to give reasons.

Another inducement which persuaded us to discuss the question of real estate valuation at such length in this brief, is because we think it illustrates a further point with regard to the Master's decision in this case. And that point can be stated in quite simple and unequivocal terms: The *Master's judgment* as to the *qualifications* of expert witnesses and the *weight* to be attached to their testimony *is not sound*.

### **Buildings.**

In order to aid the Court in determining at a glance the differences between the estimated costs and present values of Buildings as given by Mr. Lea and Mr. A. D. Adams and the conclusions of the Master in respect thereof, we have prepared and here insert a tabulation showing such differences in convenient form. (Where blanks occur it indicates that no finding was made or testimony submitted):

#### **BUILDINGS.**

	Master	Lea	Adams
<b>Purifying House:</b>			
Net Construction Cost.....\$.....		\$16,620	\$12,577
Reproduction Cost .....	16,700	19,277	13,457
Present Value .....	13,200	14,074	8,427
<b>Generator House:</b>			
Net Construction Cost.....		3,759	3,261
Reproduction Cost .....	4,000	4,337	3,489
Present Value .....	3,800	4,120	3,016
<b>Retort House:</b>			
Net Construction Cost.....		3,739	6,088
Reproduction Cost ....	7,500	8,919	6,515
Present Value .....	6,375	6,511	4,079

**Meter Shop and Booster House:**

Net Construction Cost.....	2,616	2,049
Reproduction Cost .....	2,850	3,035
Present Value .....	2,660	2,883
		1,895

**Coal Shed:**

Net Construction Cost.....	1,793	1,657
Reproduction Cost .....	2,080	2,080
Present Value .....	520	520
		746

**Oil Tank House:**

Net Construction Cost.....	1,558	1,107
Reproduction Cost .....	1,807	1,807
Present Value .....	1,500	1,500
		858

**Stable and Blacksmith Shop:**

Net Construction Cost.....	818	818
Reproduction Cost .....	949	949
Present Value .....	493	493
		327

**District Holder Booster House:**

Net Construction Cost.....	721	.....
Reproduction Cost .....	811	836
Present Value .....	770	803
		.....

**Oxide Shed:**

Net Construction Cost.....	60	60
Reproduction Cost .....	70	70
Present Value .....	63	63
		53

**Totals:**

Net Construction Cost.....	\$35,614	\$27,617
Reproduction Cost .....	\$36,767	41,312
Present Value .....	29,381	30,967
		19,401

(As to Lea's valuations see Transcript, pp. 1304-1320; as to Adams' valuations see Transcript, p. 1453; as to the Master's valuations see Transcript, pp. 39, 40.)

Here again it will be noted that the difference in totals between Mr. Lea's estimate and the Master's findings does not represent a very great amount in dollars. But nevertheless it is clear that the Master used no definite method of calculation, based on the evidence, in arriving at his results. He does not specify what evidence or whose evidence he is relying on (except in the case of a few of the smaller buildings where he accepts the figures of Mr. Lea), nor does he show why the estimates of either witness are disregarded or accepted as the case may be

or what effect the testimony of the respective witnesses had upon his conclusions. For instance, in the cases of the Coal Shed, the Oil Tank House, the Stable and Blacksmith Shop and the Oxide Shed, he uses the Reproduction Cost and Present Value of Mr. Lea without the slightest variation, even though the estimates of Mr. A. D. Adams were in each case appreciably different. Now, if Mr. Lea is competent and qualified to give an accurate valuation of some of the buildings, why is not more consideration given to his estimates on all of the buildings? The report does not tell us. What reason is there for not accepting Mr. Lea's figure on the Purifying House, which is the most expensive building of all, and concerning which Mr. Lea testified more in detail than all the other buildings combined; and his estimates on the Purifying House were corroborated more closely by the testimony of other witnesses than any of the other buildings? If Mr. Lea's figures are not reliable in one case why not in all? The Master should have specified which items of unit cost in the Purifying House were erroneously given by Mr. Lea. Furthermore, as to the District Holder Booster House Mr. Lea's estimates were the only ones submitted in evidence and there could be no other valuation on which the Master could possibly rely. Yet he reaches a figure lower than Mr. Lea's, though why he does so, we are at a loss to know. The amount involved is comparatively trifling, but it shows clearly that the Master has not made findings based on the evidence.

Moreover, if we analyze the Master's findings on Buildings Valuation, the conclusion cannot be resisted that, throughout this group of valuations at least, he had no method or basis of determining values and did not even rely on the evidence before him. Both Mr. Lea and Mr. A. D. Adams gave their estimated values in three forms, to wit: They first estimated the Net Construction Cost

(which includes the cost of materials and labor solely); from this they calculated the Reproduction Cost (which is arrived at by adding Overhead Charges to the Net Construction Cost); they next deduced the Present Value (which is found by deducting from the Reproduction Cost the estimated amount of Depreciation). In all of their estimates, Mr. Lea and Mr. A. D. Adams present their figures under these three headings. The Master, however, fails to give, in case of each of the buildings, a finding as to estimated Net Construction Cost. He does not specify what unit costs for labor and materials he uses, and it is impossible to determine the Master's Net Construction Cost, except by indirect means—that is, calculating his Net Construction Cost by deducting 12½ per cent. from his Reproduction Cost (12½ per cent. being what the Master has estimated to be a proper allowance for Overhead Charges). This method shows us what the Master's Net Construction Costs (whether he realized it or not) were. The following shows the same in tabulated form:

Purifying House .....	\$14,844.00
Generator House .....	3,556.00
Retort House .....	6,667.00
Meter Shop and Booster House .....	2,533.00
Coal Shed .....	1,849.00
Oil Tank House .....	1,606.00
Oxide Shed .....	62.00
Stable and Blacksmith Shop.....	844.00
District Holder Booster House.....	721.00
Total .....	<hr/> \$32,682.00

This tabulation puts the Master's findings in a rather peculiar light. In the case of the Coal Shed, Oil Tank House, Stable and Blacksmith Shop and Oxide Shed, his Net Construction Cost is *higher* than Mr. Lea's, and

Mr. Lea's Net Construction Cost was the *highest* submitted in evidence. In other words, in all those instances, where the Master has adopted Mr. Lea's Reproduction Cost, the Master's Net Construction Cost *ipso facto* becomes higher than any estimate in the record. Now the Net Construction Cost, it will be remembered, is made up of the total *unit cost* of materials and labor. So that the unit cost for materials and labor in the Coal Shed, Oil Tank House, Stable and Blacksmith Shop and Oxide Shed the Master finds to be higher than any estimate given by any witness. This must be the case or his findings would be meaningless. Now, if the Master's unit costs of materials and labor are higher than Mr. Lea's in the case of the buildings just mentioned, then it follows that they must be higher in the case of, let us say, the Purifying House. There is positively no reason why this does not hold true. The units of cost are the same in each of the buildings. That being the case, how could the Master have calculated his Net Construction Cost of the Purifying House, using higher unit costs than Mr. Lea, so as to reach a result lower than Mr. Lea's Net Construction Cost, unless there is doubt in the record as to the amount of material which actually went into the building; but there is no question as to the amount of material in each building, because Mr. Brodnax in his inventory (prepared with "unusual thoroughness," as the Master says), shows exactly what was there. The Master specifically states that during the long trial there was only *one error discovered in this inventory* and the record shows that this so-called error, which the Master is referring to, occurred in calculating the number of feet of mains, and had nothing to do with the buildings. So that it is conceded by the Master that there can be no doubt of the amount of material in the building.

The only ground for difference in estimating Net Con-

struction Cost, therefore, is in determining the unit costs. The situation which confronts us is that the Master, although using higher unit costs for the same amount of material, estimates a lower Net Construction Cost than Mr. Lea. Such a finding is clearly absurd. If we deduct the Master's  $12\frac{1}{2}$  per cent. (representing his Overhead Charges) in order to get his Net Construction Cost on the Purifying House, we arrive at the figure of \$14,844 as against Mr. Lea's \$16,620. But we have just shown that inasmuch as the Master's units of cost were *higher* than Mr. Lea's, the former's Net Construction Cost must be *at least* equal to, though logically, more than Mr. Lea's. But assuming for the purpose of a quick calculation that the Master's Net Construction Cost is equal to Mr. Lea's, then the Master's Reproduction Cost (on the basis of  $12\frac{1}{2}$  per cent. Overhead) should have been *at least* \$18,707 for the Purifying House instead of \$16,700, which appears in his report. It is quite evident that the Master must have made a serious blunder somewhere in his calculation when he finds the Reproduction Cost of the Purifying House as \$16,700 when, as we have shown, it should have been \$18,707.

We will be frank, however, and state unequivocally, that we firmly believe the Master had no method of calculation whatsoever. As we have said before, we believe he has merely picked his figures at random. We don't believe he estimated any Net Construction Cost at all or used any unit of cost for labor or materials or anything else, when framing his report; and that he omitted to specify any Net Construction Cost in his report in an effort to save himself from laborious calculations. But the fact that he was compelled to specify some per cent. for Overhead Charges and chose  $12\frac{1}{2}$  per cent., unables us to check his figures and show that his estimates are absolutely without foundation in the record.

To bring out our contention more clearly we will make another calculation. The Master does not show the estimated life of any of the Buildings—that is, their expected existence or usefulness. Now, the matter of life and actual age of Buildings must be decided on in order to determine their Present Value (which is figured by deducting the Depreciation from the Reproduction Cost). There was considerable difference between the estimate as to life or expected existence of these Buildings as given by Mr. Lea and Mr. A. D. Adams, but there was no controversy at all as to the *actual ages* of any of the Buildings, because that was a matter of fact which was proved and admitted. As to the calculation of Depreciation, the Master states in his report that he has used the “straight line” method of figuring; that is a method by which Depreciation is found by deducting from the Reproduction Cost a certain per cent. of said Reproduction Cost, based on the number of years the property has been in existence. In figuring his Present Value from his Reproduction Cost, therefore, the Master must have determined the life of each Building and thus decided the amount to be deducted from the Reproduction Cost for each year of actual existence. As we have said, the Master does not tell us his findings as to the various estimated lives of the respective Buildings; but having his Reproduction Cost and his Present Value, we know that he must have deducted the difference between the two from his Reproduction Cost as representing the amount of Depreciation in dollars. By dividing this sum by the number of years the Buildings have been in existence, we can tell what was the amount in dollars which the Master found must be set aside annually to take care of Depreciation. And by dividing the amount thus found, representing the Depreciation annuity, into the total Reproduction Cost, we get exactly the life *in years* which the Master

must have estimated the respective Buildings had. The calculation with the Master's figures to determine this Depreciation annuity results, as follows:

Buildings	Age (Yrs.)	Reproduction Cost	Present Value	Depre- ciation Annuity
Purifying House.....	22	\$16,700.00	\$13,200.00	\$159.09
Generator House.....	5	4,000.00	3,800.00	40.00
Retort House.....	22	7,500.00	6,375.00	51.14
Meter Shop and Booster House .....	5	2,850.00	2,660.00	38.00
Coal Shed.....	22	2,080.00	520.00	70.90
Oil Tank House.....	15	1,807.00	1,500.00	20.47
Stable and Blacksmith Shop .....	15	949.00	493.00	30.40
District Holder Booster House .....	3	811.00	770.00	18.67
Oxide Shed.....	3	70.00	63.00	2.33

Having found the Depreciation annuity we can then determine the life (in years) of each Building ascribed to it by the Master, and we have set this conclusion down in the following tabulation together with the estimated lives as given by Mr. Lea and Mr. A. D. Adams in their testimony:

Buildings	Master	Lea	Adams
Purifying House .....	104.9	50.	66.6
Generator House.....	100.	50.	66.6
Retort House.....	146.6	50.	66.6
Meter Shop and Booster House.....	75.	50.	66.6
Coal Shed.....	29.3	25.	40.
Oil Tank House.....	88.2	50.	66.6
Oxide Shed.....	30.	20.	25.
Stable and Blacksmith Shop.....	31.2	25.	25.
District Holder Booster House.....	59.3	40.	66.6
Average or composite life of all buildings.	86.3	46.25	62.5

Having made a casual inspection of the above tabulation, we then put the following pertinent inquiries:

- (1) Did the Master base his findings on the evidence?

(2) Did the Master actually adopt any real method of calculating values or has he picked values at random?

(3) Was the Master appointed to find facts from evidence or merely to give his own opinion?

(4) Does the Master consider himself better qualified as an expert than both Mr. Lea and Mr. A. D. Adams?

(5) Have the Master's findings any real merit?

We think it will aid the Court in deciding the questions raised by our exceptions, to give herein a brief summary of the evidence before the Master on the valuation of buildings, confining ourselves, however, in order not unnecessarily to prolong the discussion, to a consideration of the evidence relating solely to the Generator House, inasmuch as the Generator House was built in 1907 and there was better opportunity to show its actual cost.

Mr. Lea in Exhibit "7," sub. H, gave the Net Construction Cost of all the buildings at \$35,614.00, the Reproduction Cost at \$41,312.00 and the Present Value at \$30,967.64. (Transcript, p. 1304.)

Mr. A. D. Adams for the City gave the Net Construction Cost at \$27,617.00; the Reproduction Cost at \$29,550, and the Present Value at \$20,759.00. (Transcript, p. 1453.)

Mr. Lea's valuation of the buildings is supported by the record of the buildings and by the testimony of Mr. Hahn, who constructed portions of the building, and Mr. Davis, the architect, who gave the unit cost of the materials and labor entering into the construction. Against this valuation is the testimony of Mr. A. D. Adams and in part the foolish estimates presented by Mr. Assenmacher. We have already considered in the early

part of this case the qualifications of Mr. Assenmacher, as an expert on the value of buildings, and we do not deem it necessary to add here anything further to what we have heretofore stated.

Mr. Brodnax with a corps of assistants made a complete detailed inventory of all the Company's property, including the buildings, which was made the basis for Mr. Lea's valuation.

Mr. Brodnax testified, with reference to the inventory to the effect that he first made a property plan showing the location and size of each building, taking each building separately and making a scale drawing with transverse and longitudinal sections and plans; then summarized the materials in the buildings, making the same practically in the form of a bill of material, beginning primarily with the excavation footings, making actual measurements of the lengths, height and thickness of the walls, besides the brick, in each building, and computed the amount and made a detailed statement of all the material in the buildings, ascertaining in each instance the exact quantity and character of material, to the end that he would have practically the same bill of materials in taking down the building in this way that would be used in putting it up. (Transcript, p. 502.)

*Generator House.*

Mr. Lea's estimate:

Net Construction Cost, \$3,739;    Reproduction Cost, \$4,337; Present Value, \$4,120.

In Exhibit "7-H," (Transcript, pp. 1305-20), Mr. Lea gives the details in quantities and materials entering into the Generator House, and gives a Net Construction cost of each of such units of quantities.

Mr. Lea figured brick in the wall at \$17 per thousand,

except in brick in the pilasters and cornices, which were figured at \$21.25 per thousand; lumber at the works at \$26, \$27 and \$28, and lumber in place at \$42 per thousand (303); steel in the floors and roof of the building at 3c to 5c per lb. in place, depending upon size and weight.

Mr. Lea figured brick f. o. b. Lincoln \$7.50 per thousand, sand per thousand brick 38c, cement 79c, lime 49c, total \$9.07; labor and time for brick layers \$4.16; helpers \$1.87; carpenter 77c, miscellaneous cost of handling materials \$1.16; total labor \$7.96. The total cost of material and labor per thousand brick in wall would therefore be \$17.03, and for the sake of convenience, Mr. Lea used \$17.

In this computation Mr. Lea figured on common brick and used the figure \$17 per thousand in place and \$21.25 for the pilasters and cornices, and applying these unit costs to the quantities of material in the Generator House, Mr. Lea found the Net Construction Cost to be \$3,739.

Ellery Davis, the architect, was a witness for the Company. His qualifications have been heretofore discussed. He prepared and submitted a detailed statement of the items of material and labor cost per thousand brick in the wall—where lime mortar was used and where cement mortar was used—and a detailed statement of the quantity of material and the cost of each, and the labor cost of the concrete and rubble stone work, the details of which will be found in his testimony on pages 539 to 544. We present here a summary of the unit costs for material and labor for brick and stone work submitted by Mr. Davis:

## UNIT COST FOR BRICK WORK.

By Ellery Davis.

## MATERIAL

Brick, per thousand.....	\$8.00
Sand, per yard.....	1.35
Lime, per yard.....	1.25
Stone, com., per yard.....	2.56
Stone, small, per yard.....	2.70

Note: These totals include profit of from 10 to 15%.

## LABOR

Mason work, Union scale..	\$0.70
Stone mason .....	.65
Helper .....	.30
Common laborer or shoveler ..	.25

Note: Profit of 10% should be added to total of above items.

## COST FOR 1,000 BRICK WITH LIME MORTAR.

## MATERIAL

Brick, per thousand.....	\$8.00
Lime, white, .91 bbl.....	1.14
Sand, 5/8 yard.....	.84
Waste, broken brick.....	.30

Total material.....\$10.28

## LABOR

Mason (160 brick per hr. at 70c. per hr.; 6 hrs.).....	\$4.20
Helper, 6 hrs. at 30c.....	1.80
Adding 10% profit.....	.60

Total labor.....\$6.60

Total labor plus material, \$16.88.

This does not include anything for foreman's time.

## COST FOR 1,000 BRICK WITH CEMENT MORTAR.

## MATERIAL

Brick, per thousand.....	\$8.00
Cement, per bbl.....	2.00
Lime, .73 bbl.....	.91
Sand, 5/8 yard.....	.84
3% storage and waste.....	.35

Total material.....\$12.10

## LABOR

Mason, 7 hours.....	\$4.90
Helper, 7 hrs.....	2.10
Adding profit 10%.....	.70

Total labor.....\$7.70

Total material.....12.10

Total material and labor \$19.80

Mr. Brodnax testified that he had applied the unit cost furnished by Mr. Davis to the quantities of material in the different buildings and determined the cost based on such unit prices; that using the unit cost for excavation furnished by Robert Malone, the excavator, the computation showed a net construction cost for the generator house of \$3,902, as against Mr. Lea's \$3,739, and a repro-

duction cost of \$4,526, as against Mr. Lea's \$4,337, and as against Alton D. Adams's net construction cost of \$3,261 and reproduction cost of \$3,489 or a difference between the net construction cost as furnished by Davis-Brodnax, and as testified to by A. D. Adams, of \$1,037 (Transcript, p. 509).

The company offered in evidence the detailed statement taken from the books of the Company, showing the actual cost of this generator house. The items and details are shown (Transcript, pp. 1717-19), and show the amount of money paid out by the Company, on account of the generator house. The cost records of the Company show that the company paid out in building the generator house, exclusive of the Otis elevator, the sum of \$4,465.88. This is \$1,204.88 more than A. D. Adams's estimate and allowance for the net construction of the generator house. The record of the actual cost of this building is a truthful witness and stands as proof of the fact that this building cost the company \$1,204.88 more than the estimated cost by the City's alleged expert.

Mr. Perry Hahn, the contractor, who built the generator house above the foundation walls for the company, testified in part, as follows:

"A. I paid \$7.50 per thousand F. O. B. gas works for the brick and got them of Yankee Hill Brick Company. At that time the ordinary price at which brick were selling was \$7 per thousand, and I paid \$7.50, because I got an extra good brick. . . . When I took the job they specified that there would have to be an extra hard brick for the outside and that represents the extra cost" (Transcript, p. 545).

Mr. Hahn gave the details for material and labor costs per thousand in place, on cross examination by A. D. Adams and testified that he was a building contractor and had followed that business in Lincoln since 1881, and had built three of the buildings for the gas

plant; testified that his contract price for that portion of the generator house built by him was \$3,650 and presented a statement, showing the cost of materials and labor itemized, which was identified as Exhibit "365" (Transcript, pp. 20-26).

As against this testimony on the part of the company, which speaks conclusively on the cost and value of the generator house, we have the testimony of A. D. Adams, *who accepted the quantities of materials*, but applied a different unit cost for the four items; (1) brick f. o. b. plant, and in place; (2) concrete; (3) excavation; (4) stone.

The vouchers for brick upon which the witness, Adams, based his estimate are Exhibits "420," "421" and "422" (Transcript, p. 1631).

Exhibit "421" is a voucher showing payment for a small amount of brick purchased by the company from Mr. Hahn in 1909, showing a price of \$2.75 per thousand. Mr. Hahn testified that he was not in the brick business and did not remember having sold any brick; that if he sold these brick it must have been that he had finished up his work and had brick left over, and rather than pay further switching charges and expense in reloading the brick, he may have sold what he had left over on the job to the company for less than the amount he paid. (Transcript, p. 546.)

Exhibit "420" was for brick purchased in 1907. The amount of the bill was \$388.12, and with respect to this bill A. D. Adams, on cross-examination, admitted there should be added a switching charge of 25c a thousand; that the bill did not indicate whether the brick were f. o. b. brick works or plant, or whether the brick were common brick for use about the plant where a cheaper class of brick can be used; or whether they were a good grade of hard building brick; that the character of the brick would account for a variation

of several dollars per thousand; that he did not know whether the freight charges or switching charges were included, and did not know the kind or character of the brick represented by the bills. (Transcript, p. 1091-3.)

We insist that with this limited information the witness was not qualified to testify as to the unit price for a good quality of brick such as was required in the buildings at the gas plant. Exhibit No. "422" is for \$91,000 worth of brick at \$7.00 per thousand, and this bill, like the exhibits "420" and "421," conveys no information as to the character of the brick or whether the brick were f. o. b. brick factory or f. o. b. plant, and if f. o. b. brick factory would indicate a price on the particular brick whatever their quality may have been, equal to the price paid by Mr. Hahn. These three vouchers and exhibits are the sum total of the information acquired by the witness A. D. Adams on the price of brick locally upon which he based his price of \$7.00 per thousand for the generator house, purifying house and other buildings of the Company, and it is this character of information that he regarded as more reliable than information available at the brick factory, or from those engaged in handling building materials in the city, or from contractors and builders or architects in the city. It is unbelievable that he did not investigate and learn from architects, contractors and builders and those engaged in handling building materials in the locality, what such materials would cost. It is our conviction that he did make such investigation and was not able to secure from that source the kind of information needed; that his assumption that such information was not reliable is a pretense and excuse for not bringing such witnesses before the Court. Under the circumstances, when such low costs were required, he was the only witness who would fill the bill and answer the purpose.

The witness A. D. Adams testified that he used the unit price of \$7.00 per thousand for brick in the various buildings and \$15.00 per thousand for the brick in the walls (Transcript, p. 1094); that he used the unit price of \$7.00 per yard for stone and concrete in the foundations and 40c per cubic yard for excavation, removal and disposition of the dirt (Transcript, pp. 873, 1095); that he investigated the cost of removing the dirt from the three State Fair buildings before making up his estimate (Transcript, p. 1088), but does not recall that he had any other figures in Lincoln for the removal of dirt for buildings (Transcript, p. 1088).

The evidence shows that the cost for excavation at the plant for these buildings was not less than \$1.00 per cubic yard.

The testimony of Robert Malon and Mr. Abel sufficiently establish the cost for excavation at the plant at \$1.00 per cubic yard. We will present later the matter of the cost in our discussion of the cost of excavation for the trenches. It is sufficient here to call attention to the testimony of Mr. Malone and Mr. Abel, introduced by the company on this point. They are the two men in this locality whose business it is to know excavation costs, and both men were familiar with the conditions in Salt Creek valley and at the plant. Their statement as to the cost for excavation at the plant were backed by experience in that kind of work.

The following is a summary of the value of the buildings, net construction cost, as shown by the witnesses for the Company and the witness for the City:

#### NET CONSTRUCTION COST.

H. I. Lea.....	Exhibit "7-F"	\$35,614.00
Davis-Brodnax.....	Exhibit "65"	38,768.00
A. D. Adams.....	Exhibit "235"	27,617.00

## REPRODUCTION COST.

H. I. Lea.....	Exhibit "7-D"	.....	\$41,312.00
Davis-Brodnax.....	Exhibit "65"	.....	44,970.00
A. D. Adams.....	Exhibit "235,"	7%.....	29,550.00

In view of the testimony as above summarized, we submit that it appears from the record that the estimate of the Company's witnesses was fully substantiated and that there was no justification in the record for the Master's finding of a value for buildings lower than the Company's. We submit that the Master's findings indicate his practice in this suit of cutting off some part of the values proved by the Company (varying in degree in each instance), irrespective of the evidence before him.

**Works Equipment.**

The various items making up the Company's Works Equipment was settled by the Broadnax inventory, which was used and followed throughout the hearing by all the parties. Therefore, the various items being admitted, it was only necessary in determining the Net Construction Cost to apply the proper unit costs. From the Net Construction Cost the Reproduction Cost is then calculated by adding the amount of the Overhead Charges; and from this amount the Present Value is figured by deducting Depreciation.

The Master, in that part of his report headed "Works Equipment," begins by saying:

"The property here included consists of seventy-three items. The evidence of value comes principally from the experts, Lea and Adams, and clashes irreconcilably at almost every point." (Transcript, p. 40.)

But the Master fails to explain that there was no clash between Mr. Lea and Mr. Steinmueller, the expert

from the Western Gas Construction Company, who gave estimates on the Net Construction Cost of the principal or more expensive items of Works Equipment, and whose figures uniformly sustained Mr. Lea's; in fact, the total figures for the items on which Mr. Steinmueller gave estimates was slightly higher than Mr. Lea's for the same items. Mr. Lea's Net Construction Cost figures are \$155,524 for these items and Mr. Steinmueller's \$158,524. And there was no clash between Mr. Lea and Mr. Steinmueller, and the records of the company as to what has *actually been paid in cash* for the various items of equipment. The only clash between Mr. A. D. Adams on the one hand and Mr. Lea, Mr. Steinmueller and the company's records on the other.

Furthermore, if the evidence of Mr. Lea and Mr. Adams clashed *irreconcilably*, at least one of the two witnesses must have been in serious error—in fact, not qualified to testify as an expert. And where all the other evidence corroborates and supports one of the witnesses, it does not require a great amount of acumen to determine which of the witnesses is in error. But nevertheless the Master here, as always, steadfastly refuses to give us his conclusions as to the weight which he attaches to any of the evidence. We are left completely in the dark as to why he selects the value set forth in his reports. He says further:

"In considering the evidence of these experts, I have been aided, of course, by the testimony of other witnesses and by reports, letters, bills, contracts, vouchers and other documentary proofs. *Upon every disputed item all the evidence, oral and written, which I have been able to find in the record has been examined, considered and given in the decision reached its proper weight of influence.* After ascertaining the Reproduction Cost which is in the aggregate \$198,868, and making proper deductions for Depreciation, I present here *without discussion*

*of the evidence* my conclusion that the present value of the seventy-three units, which compose this division of the company's property, is \$179,310" (Transcript, p. 40).

Now, if the Master has, as he says, examined, considered and given proper weight to *all the evidence upon every disputed item*, we think we have the right to inquire why he sets forth merely his conclusions "without discussion of the evidence." Does he honestly believe, as he states at the outset of his report under "Preliminary Observations," that a summary of the evidence would "aid neither court nor counsel in testing the correctness of the conclusions which I have reached." We ask in all seriousness how the Court or we can test the correctness of his conclusions unless he does discuss the evidence upon which his conclusions must be founded. There is only one other possible way to do so, and that is for the Court to read the entire record from beginning to end, and even then the Court would lack the opportunity to personally observe the bearing of the various witnesses on the stand and to aid his judgment by such observation. The Master was appointed for the very purpose of reporting on and summarizing the evidence, as well as to give his conclusions based thereon, in order to relieve the Court of the burden of reading a great mass of testimony, much of which relates to issues at first deemed important by the City but later abandoned as immaterial. We can not understand how the Master so completely fails to grasp the proper conception of the necessity for appointing him to act as such.

Furthermore, we feel compelled to state frankly, and we will proceed to point out, that the Master *has not* done what he claims to have done—that is, he has not examined or considered all the evidence which he could have found in the record nor given it proper weight of

influence. We believe we can demonstrate this with little difficulty, as follows:

The Master gives us his Reproduction Cost and his Present Value. He does not specifically state what his Net Construction Cost is. We will first compare the Master's total estimates (or rather such of those as are given by him) with the estimates of Mr. Lea and Mr. A. D. Adams.

	Master.	Lea.	Adams.
Net Construction Cost....		\$218,358	\$160,069
Reproduction Cost.....	\$198,868	253,298	171,274
Present Value .....	179,310	196,759	130,544

(Transcript, pp. 40, 1368).

Now, although the Master has not told us in figures what his Net Construction Cost is, we know that he must have calculated his Reproduction Cost by adding 12½ per cent to his estimated Net Construction Cost. Having his Reproduction Cost only, we can reverse the operation and get his Net Construction Cost, which is \$176,771. This represents the total unit cost applied to all the items. This figure first appears to be somewhere between the estimates of Mr. Lea and Mr. Adams as to Net Construction Cost, Mr. Lea's being \$218,358 and Mr. Adams' \$160,069. But it will be remembered, however, that the City and Mr. A. D. Adams claimed, throughout the suit, that in estimating the Company's Works Equipment, there should be excluded the East Lincoln District Holder and all equipment connected therewith, their contention being that this Holder and its equipment was installed primarily to supply consumers outside of the City of Lincoln, and therefore should not be included in estimating the value of the Company's property in the City of Lincoln. Consequently, Mr. A. D. Adams gave no estimate on the East Lincoln District Holder or its equipment, and said property was not included by him in making

up his Net Construction Cost; so that the only estimates given for this portion of the Company's Works Equipment were those presented by the Company's witnesses. The Master disagreed with the City's contention and included the Holder and its equipment in his estimate. His report shows that clearly, and he discusses why he does so. So that in the Master's Net Construction Cost estimate of \$176,771 is included the value of the East Lincoln District Holder and its appurtenant equipment. On these items Mr. Lea gives the only Net Construction Cost estimate in evidence, which is as follows:

100,000 cu. ft. gas holder.....	\$18,685.00
Water piping .....	177.00
Gas yard mains .....	463.00
Manholes, etc. ....	1,533.00
25 h. p. motor.....	423.00
5 h. p. motor.....	160.00
No. 5 Sturtevant blower.....	180.00
No. 5 Sturtevant blower.....	210.00

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Total .....\$21,831.00

(Transcript, p. 1370.)

If we deduct the total of these items from the Master's Net Construction Cost of \$176,771 we get \$154,940 as the Master's Net Construction Cost exclusive of the East Lincoln District Holder and equipment. Here, now, is a basis of comparison between the Master's Net Construction Cost and Mr. A. D. Adams' Net Construction Cost, the former's being \$154,940 and the latter's, \$160,069; that is, the Master's estimate is \$5,129 lower than Mr. Adams' estimate. This result leads to the discovery of another absurdity in the Master's report, to wit, that he has used a Net Construction Cost estimate *lower than any introduced in evidence*. In other words, in spite of the irreconcilable clash between Mr. Lea's and Mr.

Adam's figures, Mr. Adams' being so much lower than Mr. Lea's, yet the Master adopts units of cost which gives him a Net Construction Cost lower even than Mr. Adams' by \$5,129. We will go further in order to make clear our point. We will eliminate from consideration, for the moment, all equipment in the East Lincoln District except the 100,000 cubic feet Holder itself. The Net Construction Cost of this one item was given by Mr. Lea at \$18,685, by Mr. Steinmueller at \$18,000, and by the Company's records at \$19,207.32. Take the lowest figures submitted in evidence for this one item—Mr. Steinmueller's of \$18,000—and deduct it from the Master's Net Construction Cost, and we have \$158,771, or approximately \$2,000 below Mr. Adams' Net Construction Cost. This means that the Master has used lower cost units than any of the witnesses in this suit. And yet the Master says:

"Upon every disputed item all the evidence, oral and written, which I have been able to find in the record, has been examined, considered and given in the decision reached its proper weight of influence" (Transcript, p. 40).

We unhesitatingly deny this statement. We insist, as we have said before, that the report convincingly shows that the Master *completely disregarded the evidence* in reaching his conclusions.

We will make still another computation to illustrate our contention that the Master's findings are not based on the evidence.

The Master's Reproduction Cost estimate for Works Equipment is \$198,868, and his Present Value is \$179,310. The Present Value, as we have explained before, is arrived at by deducting the Depreciation from the Reproduction Cost. Depreciation is estimated by considering the life, age and present condition of the equipment. The present condition when determined may be

expressed in terms of per cent., and was so expressed by Mr. Lea and Mr. A. D. Adams in their testimony. Mr. Lea's Reproduction Cost was \$253,298 and his Present Value \$196,759. Mr. A. D. Adams' Reproduction Cost was \$171,274 and his Present Value \$130,544. The Master's Reproduction Cost was \$198,868 and his Present Value, \$179,310. Mr. Lea based his Present Value estimate on an estimated present per cent. condition of 77.67 per cent.; Mr. A. D. Adams based his Present Value on an estimated present per cent. condition of 76.2 per cent.; the Master's figures show that his Present Value is based on a present per cent. condition of 90.17 per cent. This estimate is 12.50 points higher than the highest estimate in the record. On whose testimony did the Master rely when he made this estimate? What evidence, *given its proper weight of influence*, was reflected in that conclusion? The extent of the *irreconcilable* clash, between the testimony of Mr. Lea and Mr. A. D. Adams, as to the present per cent. condition of Works Equipment, represented exactly 1.47 points, whereas the Master's findings clashes with Mr. Lea's estimate to the extent of 12.50 points and with Mr. A. D. Adams' to the extent of 13.97 points.

Can there be any reasonable doubt that the Master ignored the evidence when framing his report?

The Master gives his findings as to the Present Value of each of the seventy-three items of Works Equipment, but he has not given his Net Construction Cost nor his Reproduction Cost of the respective items. His only figure for the Reproduction Cost is expressed as a total sum which we can not possibly subdivide for the purpose of analysis or criticism. We deem this matter of sufficient importance to set forth in a comparative statement all the estimates of the various witnesses and the findings of the Master such as are given. The table is as follows:

	Master	Lea	Adams	Stein- mueller	Co. Costs
<b>Works Equipment—Total:</b>					
Net Construction Cost..\$.....	\$218,358	\$160,069	.....	.....	.....
Reproduction Cost .....	198,868	253,298	171,274	.....	.....
Present Value .....	179,310	196,759	130,544	.....	.....
<b>(1) 7' 6" Water Gas Set:</b>					
Net Construction Cost.. .....	8,477	7,506	\$8,400	\$8,322.94	
Reproduction Cost .....	9,833	8,031	.....	.....	.....
Present Value .....	8,030	9,636	7,067	.....	.....
<b>(2) 7' 6" Water Gas Set:</b>					
Net Construction Cost.. .....	8,477	7,506	8,300	13,365.72	
Reproduction Cost .....	9,833	8,031	.....	.....	.....
Present Value .....	7,710	9,341	8,031	.....	.....
<b>(3) Condenser and Scrubber:</b>					
Net Construction Cost.. .....	1,219	1,206	1,675	Inc. in 2	
Reproduction Cost .....	1,414	1,290	.....	.....	.....
Present Value .....	1,215	1,343	1,135	.....	.....
<b>(4) Operating Floor:</b>					
Net Construction Cost.. .....	2,052	1,319	.....	Inc. in 2	
Reproduction Cost .....	2,380	1,411	.....	.....	.....
Present Value .....	1,810	2,332	1,369	.....	.....
<b>(5) 6' 6" Water Gas Set:</b>					
Net Construction Cost.. .....	8,072	5,808	8,200	8,763.20	
Reproduction Cost .....	9,364	6,215	.....	.....	.....
Present Value .....	5,850	6,648	4,351	.....	.....
<b>(6) 6' 6" Springer Set:</b>					
Net Cost Construction.. .....	4,991	2,904	.....	9,184.22	
Reproduction Cost .....	5,790	3,107	.....	.....	.....
Present Value .....	1,625	2,200	870	.....	.....
<b>(7) Operating Floor:</b>					
Net Construction Cost.. .....	1,871	1,184	.....	Inc. Sp. St.	
Reproduction Cost .....	2,170	1,267	.....	.....	.....
Present Value .....	1,380	1,584	1,076	.....	.....
<b>(8) No. 7 Sturtevant Blower:</b>					
Net Construction Cost.. .....	272	254	.....	.....	.....
Reproduction Cost .....	316	272	.....	.....	.....
Present Value .....	260	275	251	.....	.....
<b>(9) No. 7 Sturtevant Blower:</b>					
Net Construction Cost.. .....	279	258	.....	.....	.....
Reproduction Cost .....	324	276	.....	.....	.....
Present Value .....	275	288	256	.....	.....
<b>(10) Root's Blower No. 1:</b>					
Net Construction Cost.. .....	273	142	.....	.....	.....
Reproduction Cost .....	317	162	.....	.....	.....
Present Value .....	150	200	110	.....	.....

	Master	Lea	Adams	Stein- mueller	Co. Costs
<b>(11) No. 8 Sturtevant Turbo Blower:</b>					
Net Construction Cost.. .. .		1,435	1,336	.....	.....
Reproduction Cost .....		1,665	1,430	.....	.....
Present Value .....	1,330	1,432	1,258	.....	.....
<b>(12) No. 8 Sturtevant Blower:</b>					
Net Construction Cost.. .. .		453	559	.....	.....
Reproduction Cost .....		525	598	.....	.....
Present Value .....	467	467	553	.....	.....
<b>(13) No. 6 Root's Exhauster:</b>					
Net Construction Cost.. .. .		791	824	.....	.....
Reproduction Cost .....		918	882	.....	.....
Present Value .....	376	376	397	.....	.....
<b>(14) No. 6 Sturtevant Exhauster: (Blower)</b>					
Net Construction Cost.. .. .		346	590	.....	.....
Reproduction Cost .....		401	631	.....	.....
Present Value .....	361	361	568	.....	.....
<b>(15) No. 10 McKenzie Exhauster:</b>					
Net Construction Cost.. .. .		440	425	.....	.....
Reproduction Cost .....		510	455	.....	.....
Present Value .....	227	209	227	.....	.....
<b>(16) Greenfield Engine 4x5:</b>					
Net Construction Cost.. .. .		240	265	.....	.....
Reproduction Cost .....		278	284	.....	.....
Present Value .....	97	97	178	.....	.....
<b>(17) Sturtevant Engine 5x5:</b>					
Net Construction Cost.. .. .		270	.....	.....	.....
Reproduction Cost .....		313	.....	.....	.....
Present Value .....	257	257	.....	.....	.....
<b>(18) Sturtevant Engine 7x6:</b>					
Net Construction Cost.. .. .		367	357	.....	.....
Reproduction Cost .....		426	382	.....	.....
Present Value .....	353	366	353	.....	.....
<b>(19) 40 H. P. Motor:</b>					
Net Construction Cost.. .. .		655	250	.....	.....
Reproduction Cost .....		760	268	.....	.....
Present Value .....	430	570	203	.....	.....
<b>(20) 35 H. P. Motor:</b>					
Net Construction Cost.. .. .		566	535	.....	.....
Reproduction Cost .....		657	572	.....	.....
Present Value .....	401	401	435	.....	.....

	Master	Lea	Adams	Stein- mueller	Co. Costs
<b>(21) Countershafting, etc.:</b>					
Net Construction Cost..		77	77	.....	.....
Reproduction Cost .....		89	82	.....	.....
Present Value .....	22	22	30	.....	.....
<b>(22) Benches 6' 5.</b>					
Net Construction Cost..		17,993	14,668	16,250	.....
Reproduction Cost .....		20,872	15,695	.....	.....
Present Value .....	14,950	16,280	8,484	.....	.....
<b>(23) Charging Floor:</b>					
Net Construction Cost..		2,440	1,605	.....	.....
Reproduction Cost .....		2,830	1,717	.....	.....
Present Value .....	1,730	2,349	1,331	.....	.....
<b>(24) 4' 6" x 25' 0" Condenser:</b>					
Net Construction Cost..		761	583	.....	.....
Reproduction Cost .....		883	624	.....	.....
Present Value .....	327	336	280	.....	.....
<b>(25) 5' 6" x 31' 0" Scrubber:</b>					
Net Construction Cost..		411	319	.....	.....
Reproduction Cost .....		477	341	.....	.....
Present Value .....	160	181	154	.....	.....
<b>(26) 4' 6" x 5' 0" Rotary Scrubber:</b>					
Net Construction Cost..		2,121	2,138	.....	.....
Reproduction Cost .....		2,460	2,288	.....	.....
Present Value .....	858	935	858	.....	.....
<b>(27) 4-20"x24"x4' Purifying Boxes:</b>					
Net Construction Cost..		13,088	7,680	15,000	.....
Reproduction Cost .....		15,182	8,218	.....	.....
Present Value .....	9,950	11,235	5,259	.....	.....
<b>(28) 10' Station Meter:</b>					
Net Construction Cost..		3,901	3,940	.....	.....
Reproduction Cost .....		4,525	4,216	.....	.....
Present Value .....	3,440	3,756	2,845	.....	.....
<b>(29) 6' Station Meter:</b>					
Net Construction Cost..		1,358	1,250	.....	.....
Reproduction Cost .....		1,575	1,338	.....	.....
Present Value .....	400	441	334	.....	.....
<b>(30) 500,000 cu. ft. Gas Holder:</b>					
Net Construction Cost..		43,985	41,537	45,000	43,897.62
Reproduction Cost .....		51,023	44,445	.....	.....
Present Value .....	45,925	47,451	41,779	.....	.....
<b>(31) 200,000 cu. ft. Gas Holder:</b>					
Net Construction Cost..		25,119	18,000	26,600	.....
Reproduction Cost .....		29,138	19,260	.....	.....
Present Value .....	14,920	16,026	12,904	.....	.....

	Master	Lea	Adams	Stein- mueller	Co. Costs
(32) 50,000 cu. ft. Gas Holder:					
Net Construction Cost.. .. .		10,409	8,000	10,000	.....
Reproduction Cost .. . . .		12,074	8,560	.....	.....
Present Value .. . . .	4,400	4,105	4,708	.....	.....
(33) 20" Connelly Governor:					
Net Construction Cost.. .. .		840	860	.....	.....
Reproduction Cost .. . . .		974	920	.....	.....
Present Value .. . . .	404	721	404	.....	.....
(34) 12 Reynolds Governor:					
Net Construction Cost.. .. .		415	380	.....	.....
Reproduction Cost .. . . .		481	407	.....	.....
Present Value .. . . .	415	443	382	.....	.....
(35) 6" & 10"x5"x10" Knowles Pump:					
Net Construction Cost.. .. .		360	418	.....	.....
Reproduction Cost .. . . .		418	447	.....	.....
Present Value .. . . .	255	255	269	.....	.....
(36) 3"x4" Vertical Pump:					
Net Construction Cost.. .. .		160	186	.....	.....
Reproduction Cost .. . . .		186	199	.....	.....
Present Value .. . . .	40	47	40	.....	.....
(37) 3½"x4"x6" Gardner Pump:					
Net Construction Cost.. .. .		90	104	.....	.....
Reproduction Cost .. . . .		104	111	.....	.....
Present Value .. . . .	81	81	85	.....	.....
(38) 4½"x3¾"x4" Worth- ington Pump:					
Net Construction Cost.. .. .		100	116	.....	.....
Reproduction Cost .. . . .		116	124	.....	.....
Present Value .. . . .	108	108	114	.....	.....
(39) 4½"x2¾"x4" Gardner Pump:					
Net Construction Cost.. .. .		95	110	.....	.....
Reproduction Cost .. . . .		110	118	.....	.....
Present Value .. . . .	95	95	98	.....	.....
(40) 4½"x2¾"x4" Worth- ington Pump:					
Net Construction Cost.. .. .		95	110	.....	.....
Reproduction Cost .. . . .		110	118	.....	.....
Present Value .. . . .	95	95	98	.....	.....
(41) 3"x2"x2" Worthington Pump:					
Net Construction Cost.. .. .		85	99	.....	.....
Reproduction Cost .. . . .		99	106	.....	.....
Present Value .. . . .	86	96	102	.....	.....

	Master	Lea	Adams	Stein- mueller	Co. Costs
<b>(42) 6"x6"x6" Warren Pump:</b>					
Net Construction Cost.. .. .		160	186	.....	.....
Reproduction Cost .. . . .		186	199	.....	.....
Present Value .. . . .	47	47	40	.....	.....
<b>(43) 2½"x3"x4" Marsh Pump:</b>					
Net Construction Cost.. .. .		80	93	.....	.....
Reproduction Cost .. . . .		93	100	.....	.....
Present Value .. . . .	80	80	83	.....	.....
<b>(44) Otis Platform Elevator:</b>					
Net Construction Cost.. .. .		1,060	965	.....	.....
Reproduction Cost .. . . .		1,230	1,033	.....	.....
Present Value .. . . .	960	1,058	908	.....	.....
<b>(45) Fairbanks Scale:</b>					
Net Construction Cost.. .. .		60	60	.....	.....
Reproduction Cost .. . . .		70	64	.....	.....
Present Value .. . . .	50	50	55	.....	.....
<b>(46) Photometer:</b>					
Net Construction Cost.. .. .		450	300	.....	.....
Reproduction Cost .. . . .		522	321	.....	.....
Present Value .. . . .	160	183	138	.....	.....
<b>(47) Calorimeter:</b>					
Net Construction Cost.. .. .		210	200	.....	.....
Reproduction Cost .. . . .		244	214	.....	.....
Present Value .. . . .	78	178	188	.....	.....
<b>(48) No. 90 Drill Press:</b>					
Net Construction Cost.. .. .		45	.....	.....	.....
Reproduction Cost .. . . .		52	.....	.....	.....
Present Value .. . . .	32	37	.....	.....	.....
<b>(49) Shop Tools and Mis.:</b>					
Net Construction Cost.. .. .		462	462	.....	.....
Reproduction Cost .. . . .		536	494	.....	.....
Present Value .. . . .	300	300	356	.....	.....
<b>(50) 4 Steel Tar Tanks:</b>					
Net Construction Cost.. .. .		760	393	.....	.....
Reproduction Cost .. . . .		882	421	.....	.....
Present Value .. . . .	410	776	210	.....	.....
<b>(51) Tar Separator:</b>					
Net Construction Cost.. .. .		179	179	.....	.....
Reproduction Cost .. . . .		208	192	.....	.....
Present Value .. . . .	158	183	158	.....	.....

	Master	Lea	Adams	Stein- mueller	Co. Costs
(52) 3' 3"x3'3"x10' 10"					
Tar Well:					
Net Construction Cost.. .. .		104	104	.....	.....
Reproduction Cost .. . . .		121	111	.....	.....
Present Value .. . . .	74	74	78	.....	.....
(53) 6' 0"x20' 0"x12' 0"					
Tar Well:					
Net Construction Cost.. .. .		472	472	.....	.....
Reproduction Cost .. . . .		548	505	.....	.....
Present Value .. . . .	390	411	399	.....	.....
(54) 2 Steel Tar Tanks:					
Net Construction Cost.. .. .		1,587	1,056	.....	.....
Reproduction Cost .. . . .		1,841	1,130	.....	.....
Present Value .. . . .	1,575	1,657	1,096	.....	.....
(55) 2 Steel Oil Tanks:					
Net Construction Cost.. .. .		1,855	1,160	.....	.....
Reproduction Cost .. . . .		2,152	1,241	.....	.....
Present Value .. . . .	1,620	1,829	1,186	.....	.....
(56) 2 Steel Oil Tanks:					
Net Construction Cost.. .. .		1,220	624	.....	.....
Reproduction Cost .. . . .		1,415	668	.....	.....
Present Value .. . . .	790	1,090	578	.....	.....
(57) Brick Oil Tank:					
Net Construction Cost.. .. .		228	228	.....	.....
Reproduction Cost .. . . .		264	244	.....	.....
Present Value .. . . .	193	198	193	.....	.....
(58) Drain Piping:					
Net Construction Cost.. .. .		1,683	1,683	.....	.....
Reproduction Cost .. . . .		1,952	1,801	.....	.....
Present Value .. . . .	1,395	1,503	1,350	.....	.....
(59) Water Piping:					
Net Construction Cost.. .. .		821	821	.....	.....
Reproduction Cost .. . . .		952	878	.....	.....
Present Value .. . . .	549	638	641	.....	.....
(60) Oil Piping:					
Net Construction Cost.. .. .		443	443	.....	.....
Reproduction Cost .. . . .		514	474	.....	.....
Present Value .. . . .	368	406	368	.....	.....
(61) Gas Yard Mains:					
Net Construction Cost.. .. .		6,750	5,008	.....	.....
Reproduction Cost .. . . .		7,830	5,358	.....	.....
Present Value .. . . .	5,110	6,342	4,395	.....	.....

	Master	Lea	Adams	Stein- mueller	Co. Costs
<b>(62) Steam Piping:</b>					
Net Construction Cost.. .. .		2,657	2,657	.....	.....
Reproduction Cost .... .		3,082	2,843	.....	.....
Present Value ..... 2,075		2,188	1,933	.....	.....
<b>(63) Tar Piping:</b>					
Net Construction Cost.. .. .		586	586	.....	.....
Reproduction Cost .... .		680	627	.....	.....
Present Value ..... 347		347	439	.....	.....
<b>(64) Works Tools:</b>					
Net Construction Cost.. .. .		600	462	.....	.....
Reproduction Cost .... .		696	494	.....	.....
Present Value ..... 395		508	346	.....	.....
<b>(65) Main Office Furn.</b>					
Net Construction Cost.. .. .		8,606	6,519	.....	.....
Reproduction Cost .... .		9,983	6,974	.....	.....
Present Value ..... 7,400		8,985	6,140	.....	.....
<b>(66) 100,000 cu. ft. Gas Holder</b>					
District Station:					
Net Construction Cost.. .. .		18,685	.....	18,000	19,207.32
Reproduction Cost .... .		21,675	.....	.....	.....
Present Value ..... 20,225		20,808	.....	.....	.....
<b>(67) Water Piping, District</b>					
Station:					
Net Construction Cost.. .. .		177	.....	.....	.....
Reproduction Cost .... .		205	.....	.....	.....
Present Value ..... 175		185	.....	.....	.....
<b>(68) Gas Yard Mains District</b>					
Station:					
Net Construction Cost.. .. .		463	.....	.....	.....
Reproduction Cost .... .		537	.....	.....	.....
Present Value ..... 475		516	.....	.....	.....
<b>(69) Manholes, District</b>					
Station:					
Net Construction Cost.. .. .		1,533	.....	.....	.....
Reproduction Cost .... .		1,778	.....	.....	.....
Present Value ..... 1,650		1,707	.....	.....	.....
<b>(70) 25 H. P. Motor Dist.</b>					
Station:					
Net Construction Cost.. .. .		423	.....	.....	.....
Reproduction Cost .... .		491	.....	.....	.....
Present Value ..... 420		442	.....	.....	.....

	Master	Lea	Adams	Stein- mueller	Co. Costs
(71) 5 H. P. Motor Dist. Station:					
Net Construction Cost.. .. .		160	.....	.....	.....
Reproduction Cost .. . . .		186	.....	.....	.....
Present Value .. . . .	155	167	.....	.....	.....
(72) No. 5 Sturtevant Blower Dist. Station:					
Net Construction Cost.. .. .		180	.....	.....	.....
Reproduction Cost .. . . .		209	.....	.....	.....
Present Value .. . . .	183	196	.....	.....	.....
(73) No. 5 Sturtevant Blower Dist. Station:					
Net Construction Cost.. .. .		210	.....	.....	.....
Reproduction Cost .. . . .		244	.....	.....	.....
Present Value .. . . .	206	229	.....	.....	.....

(Transcript, 40-2, 1370, 1719-45, 516-20.)

Here, again, will be noted the habitual practice on the part of the Master to pick a Present Value somewhere between the estimates of the opposing witnesses, though why he selects the figures he does is a question which only the Master can answer, and he expressly refuses so to do. It will be noted in comparing the figures in the above table that the great majority of the Present Values found are much nearer the estimates of Mr. A. D. Adams than those of the other witnesses. It seems to us that where the Master is rejecting the evidence of two experts (plus the records of the company on actual transactions) and reaches figures nearer the estimate of the third witness, we are entitled to know why the testimony of the two experts and the records of the company are disregarded. This is especially true where the competency of Mr. A. D. Adams as an expert was subject to such constant attack during the hearing, whereas the qualification of Mr. Steinmueller *were never questioned* by the City; nor was Mr. Lea's right to speak as an expert challenged or his experience in the gas business questioned, although his estimates were not accepted by the City. But we submit that where

the qualifications of one of the witnesses in this suit was so insistently assailed the Master should at least explain why said witness' estimates were deemed nearer the proper figure than the other estimates offered in evidence. And let us point out again that the Master, in reaching his conclusions as to Works Equipment has used a unit cost lower than Mr. Adams—the lowest in evidence—in calculating Net Construction Cost; but has thereupon faced about when he calculates a Present Value, and has adopted a present per cent. condition higher than Mr. Lea's—the highest in evidence. So that it is difficult to conclude what witness the Master did rely on in reaching his Present Value. We think we are entitled to an explanation of this situation.

### **Distribution System.**

The Master opens this part of his report by giving his Net Construction Costs. This is the first time thus far in the report that the Master has seen fit to tell what his Net Construction Cost estimates are. We will set his conclusion down in a table in comparison with Mr. Lea's and Mr. A. D. Adams' Net Construction Cost estimates.

	Master	Lea	Adams
Street Mains (exclusive of paving).....	\$173,700	\$179,814	\$130,913
Services (exclusive of paving).....	76,116	111,689	69,939
Service Boxes and Cocks.....	9,000	11,068	2,472
Service Governors .....	18,950	19,902	13,365
Meters .....	60,500	63,444	56,592
Distribution Tools .....	6,210	6,210	6,210
Street Main Drips.....	1,113	1,113	.....
Street Main Valves.....	328	328	.....
District Governor .....	225	225	.....
Railway Crossings .....	2,800	6,220	.....
Gas Appliances Loaned.....	3,250	3,791	.....
Total Net Const. Cost (exc. of paving)...	\$352,192	\$403,804	\$279,491

(Transcript, pp. 43, 1372.)

It will be noted in this table that Mr. A. D. Adams gives no separate Net Construction Cost figures on the items Street Main Drips, Street Main Valves, District Governor, Railway Crossing and Gas Appliances Loaned, but Mr. Adams claimed that these items were included in his other Net Construction Cost figures on the Distribution System. Consequently, the only estimate given on these items as units were Mr. Lea's. On three of these items, to wit: Street Main Drips, Street Main Valves, and District Governor, the Master adopts the estimate of Mr. Lea. As to the other two items, to wit: Railway Crossings and Gas Appliances Loaned, the Master chooses figures under Mr. Lea's estimate (as to Railway Crossings approximately one-third of Mr. Lea's figure). Why the Master adopts Mr. Lea's estimate in some of the instances where Mr. Lea's was the only one in evidence and repudiates it in other instances where it was the only one in evidence, is quite incomprehensible to us.

The Master then attempts to explain some of his figures, and in so doing makes such an absurd statement that it is apparent that by this time he has become completely bewildered in his attempt to work out his conclusions. He said:

"The difference between the total cost as fixed by me and the total cost according to Mr. Lea (\$529,736), consists for the most part in the elimination from Mr. Lea's figures of three items, namely:

- "1.  $3\frac{1}{2}$  per cent excess overhead:
- "2. The cost of paving over mains and services, and
- "3. The cost of service pipes paid for by patrons of the Company." (Transcript, p. 43.)

Now the Master is here considering *Net Construction Costs*, and in naming his three reasons why he is lower

than Mr. Lea he states first that he had calculated *Overhead Charges* by using a rate  $3\frac{1}{2}$  per cent lower than Mr. Lea's. *But in estimating Net Construction Costs, Overhead Charges are not included at all.* This proposition is fundamental. It is only when one is estimating *Reproduction Cost* that one *adds the Overhead Charges* to the *Net Construction Cost*. Now this mistake of the Master is no mere inadvertent use of terms. There is no question that he was talking about Net Construction Costs, because he actually named Mr. Lea's estimate (\$529,736), which he compares with his own, and both figures are Net Construction Cost estimates. How can we view this statement of the Master without concluding that he has completely lost his grasp of the situation, and that his figures can not be taken seriously?

He continues:

"Adding the  $12\frac{1}{2}$  per cent Overhead Charge to the Net Construction Cost of \$352,192, gives \$396,216, the total Reproduction Cost of the Distribution System; and its depreciated value or Present Worth I find to be \$351,624" (Transcript, p. 43).

The Master's Reproduction Cost being \$396,216 and his Present Value being \$351,624, we can, by using the calculations heretofore referred to, determine what he estimates as his present per cent condition. We find that it is 88.75 per cent, whereas Mr. Lea's figure was 79.32 per cent, and Mr. Adams' 74.72 per cent. In other words, the Master's present per cent condition is 9.43 points higher than the highest estimate in the record.

We again respectfully submit our inquiry: Has the Master based his findings on the evidence?

The Master's findings on Net Construction Costs can be compared to Mr. Lea's rather briefly. The estimates of these costs are \$352,192 by the Master as against \$529,736 by Mr. Lea. The difference is \$177,544. The

Master has expressly refused to allow for the cost of *Paving over Main and Services*. In this he rejected the contention of the Company and upheld the City's position. This elimination accounts for a difference of \$125,932. The Master also refused to allow the Company credit for the proportionate value of services represented by the length of said services between the lot-line and the consumers' meters. Although the full length of these services had been installed by the Company, a certain amount, to wit, \$30,484, had been collected from the consumers to defray part of the costs. If we deduct both the sums above mentioned as disallowed from the difference between the Master's and Mr. Lea's Net Construction Cost, we still have \$21,128 unaccounted for.

The questions raised by the exclusion of these two items are questions of law, and are very serious matters. We will discuss them at length presently.

In the meanwhile we think it well to set forth in a table all of Mr. Lea's estimates on Distribution Systems as follows:

	Net Constr. Cost	Reproduction Cost	Present Value
Street Mains .....	\$179,814.00	\$208,583.00	\$173,061.00
Passing Over Mains.....	111,365.00	129,184.00	129,184.00
Services .....	111,689.00	129,559.00	99,851.00
Service Boxes and Cocks.....	11,068.00	12,839.00	9,886.00
Paving Over Services.....	14,567.00	16,898.00	13,107.00
Service Governors .....	19,902.00	23,086.00	20,157.00
Meters .....	63,444.00	73,595.00	53,515.00
Distribution Tools .....	6,210.00	7,204.00	5,259.00
Street Main Drips.....	1,113.00	1,291.00	1,046.00
Street Main Valves.....	328.00	380.00	308.00
District Governor .....	225.00	261.00	235.00
Railway Crossings .....	6,220.00	7,215.00	5,844.00
Gas Appliances Loaned.....	3,791.00	4,398.00	2,375.00

(Transcript, p. 1370.)

Mr. George L. Campen testified with respect to the Net Construction Cost of the gas mains, not including

the drips and valves (Transcript, p. 528, *et seq.*), and the Net Construction Cost of the Paving over the Street Mains. He gave the Net Construction Cost of Street Mains at \$182,417.37 as against Mr. Lea's Net Construction Cost of \$179,814 and Mr. A. D. Adams' Net Construction Cost of \$130,913. Mr. Campen gave the Net Construction Cost for the Paving over Street Mains at \$102,283.90, as against Mr. Lea's Net Construction Cost of \$111,365, and Mr. A. D. Adams', \$34,518. Mr. Campen gave the total Net Construction Cost for Street Mains, including specials, but not drips or valves, and for Paving over Mains, of \$284,701.27, as against the corresponding item by Mr. Lea of \$291,179, and of Mr. Adams, \$165,431. Mr. Campen was within approximately 3 per cent of the Net Construction Cost as given by Mr. Lea for the Street Mains and Paving over Street Mains (Transcript, p 1801). Mr. Campen's qualifications to speak on the subject of costs for the construction of Street Mains and Street Paving, which he had heretofore considered, must be conceded. Mr. Campen's long experience in the city engineer's office of this city and in actual construction work here and elsewhere makes his testimony of particular importance and value. He has been a construction engineer for a long time, engaged in actual construction work, and knows the local conditions here, and we place his evidence before the Court in confirmation of Mr. Lea's judgment, asking that it be weighed against the testimony of Mr. A. D. Adams, who, without experience in this class of work, bases his claim to competency to speak at all upon the question of these costs on the ground that he has studied certain reports. In spite of the testimony of Mr. Lea and Mr. Campen, the Master saw fit to reduce their Net Construction Cost \$21,128. His report is silent as to why he does so.

We will now consider the two questions raised by

the Master through his rejection of the Company's contention that the Master should have allowed in his Net Construction Cost of the Distribution System for the value of Paving over Mains and Services and for the total value of the Services, even though part of the cost of the installation of said Services had been collected from consumers.

*Paving Over Mains and Services.*

The Master gives his reasons for not allowing the above item, as follows:

"That no allowance can be made in a rate case for the Reproduction Cost of paving over mains and service pipes seems now to be established by the clear weight of judicial and administrative authority. *Cedar Rapids Gas Light Company v. Cedar Rapids*, 134 Iowa 426 (correct citation, 144 Iowa 426); *Des Moines Gas Company v. City of Des Moines*, 199 Fed. 204; *People v. Willcox*, 104 N. E. (N. Y.), 911; *Whitten on Valuation of Public Service Corporations*, chap. VII.

"The better reason, too, seems to be against such allowance. To permit a public service corporation to justify a rate claimed to be excessive by pointing to a costly street improvement made by the public at its own expense hardly accords with good sense. The public would be reluctant to make such improvements if they result not only in increasing taxation, but an increase of gas and water rates as well" (Transcript, p. 43).

The City of Lincoln, through its witness Mr. A. D. Adams, presented but one valuation in this case, and stated conclusively and unequivocally that the estimate was based on the present value of the property, determined by calculating the cost to reproduce it new, less depreciation (Transcript, pp. 1113-14). The City insists that its calculations of Present Value were based on the reproduction theory—that is, the cost of reproducing the

entire property just as it stands now—not by substituting another gas plant of equal efficiency, but by completely rebuilding the present outfit as it exists. This also was the method of valuation adopted by the Company's witnesses; so that all parties were agreed as far as the method estimating value was concerned. They all used the reproduction method. It was for this reason that Mr. A. D. Adams refused to be influenced by the Company's records as to what sums in cash had been actually invested in various items of property. He said in substance that he was not trying to figure the actual investment of the Company, but what was the Present Value of the plant, based on the cost to *reproduce* it, less depreciation. It was for this reason that he sought to justify some of his figures, when there was a serious conflict between his estimate of values and the sums which the Company had paid in very recent years for equipment, his explanation being that he was figuring on reproducing the plant as a single job, whereas the Company's records merely proved the cost of piece-meal construction. The City insisted that by reproducing the property as one construction job there would be a material saving in the cost than if construction was spread over several years; and the City claimed to be entitled to that difference (Transcript, pp. 1113-14). The City throughout the hearings pressed the point that it was figuring on reproduction at the present time, and as quickly as possible from a given date. It is true, of course, that piece-meal construction would cost more. In the Wisconsin case, *State Journal Printing Company v. Madison Gas & Electric Light Company*, 4 W. R. C. R. 546, it was estimated that piece-meal construction would cost 15 per cent more than construction as a single job. The Company admits this proposition, and all the Company's estimates were based on the theory of continuous construction so as to necessari-

tate the lowest possible cost. The City claimed the benefit of the estimated 15 per cent saving by this method of construction, and the Company was willing to accede the point.

But in spite of the City's protestation as to its having adopted the reproduction method of valuation, nevertheless whenever a point arose whereby it appeared that the City might work out a reduction in value by abandoning the reproduction theory, said theory was brushed aside by the City's witness with very little ceremony. One of these instances was the question of Paving over Mains and Services. Other instances were cases where the City sought to substitute a value based on the installation of more modern but less expensive equipment than the Company owned. But the Master stood firm for the reproduction theory of valuation. He said at the beginning of his report:

"The contention has been made on behalf of the City that there are a number of plant items which ought not to be valued on the basis of reproduction cost, but on the basis of the cost new of more modern and equally efficient substitutes of a different type. I have not adopted this view, but have instead valued all such items as they actually exist. The property whose valuation is here involved is, of course, the aggregation of things owned by the Company and used by it in serving the public. Rates should therefore, it seems to me, be based upon the values of those things rather than upon the value of other things performing like functions with equal or greater efficiency" (Transcript, p. 37).

At the outset, therefore, both parties were agreed on the reproduction method of valuation, and the City only abandoned that theory when it thought it would work out some advantage. The Master adopts the reproduction method in his valuation and has, as we have pointed out, frequently ignored the Company's actual cost of a

piece of equipment substituting a lower figure in making his estimate. But the Master, too, abandons the reproduction theory when it comes to Paving over Mains and Services. Now for the first time in his report he seems to be concerned with *actual investments*, whereas in valuing the rest of the equipment the Company's records as to actual investment seemed to be of small consequence.

The City's witness, Mr. A. D. Adams, admitted that, in logically applying the reproduction method of valuation, there was no escaping the conclusion that the cost of paving subsequently laid had to be included in the valuation of services and mains (Transcript, pp. 1127, 900). As a result he placed an estimate of \$34,518 as the additional net construction cost of the mains by reason of the paving over them. But it is interesting to note how he worked out this valuation. He insisted that if he were reproducing the distribution system he would lay the majority of the mains in the parkways of the streets, where there is no paving, and thus avoid the cost of breaking through the pavement to lay the mains (Transcript, p. 1123). He used this method of valuation in spite of the city ordinance compelling the laying of the mains in the middle of the street. Not only is his method of valuation in direct conflict with the city ordinance, but it cannot in any sense of the word be called a reproduction method of valuation. There is no question but that if the Company is to have some of its values reduced by employing the reproduction method of valuing, that it is entitled to a consistent application of that method and that all estimates should be based upon the cost of reproducing the property *as it now stands*.

There can be no question about the proposition that the City and the Master, once having adopted the method of valuing, should consistently apply that method throughout the case, and not abandon it when it ap-

pears to be an occasion where such methods would work out an increase in value for the Company. In all fairness the Master should not strip the Company of values by repudiating its cost of equipment on the ground that it represented piece-meal construction, and therefore was inconsistent with the reproduction theory of valuing, and then refuse the Company the value of Paving over Mains and Services because the Company *had* constructed piece-meal, and therefore laid a good part of its mains and services before the pavements were laid down.

The Master cites four authorities to uphold his decision. We contend, and will endeavor to point out, that they are not authorities at all for the proposition for which they are cited.

The first case is the *Cedar Rapids Gas Light Company v. Cedar Rapids*, 144 Iowa, 426. A consideration of that case shows at once that the Court expressly repudiated the reproduction method of valuation. Ladd, J., said in part.

"The contention illustrates how inequitable would be a rule arbitrarily fixing the value as that for which a system might be replaced. Aside from this being impractical it may safely be said that there is hardly an enterprise of this character, which, were it destroyed, would be restored as it was before. *In ascertaining values in this way, the worth of a new plant of equal capacity, efficiency, and durability, with proper discount for defects in the old and depreciation for use, should be the measure of value rather than the cost of exact duplication.*"

It is clear that the Court rejects the reproduction method of valuation, so that the above decision has no bearing on a case where the value is determined by all parties upon the basis of reproduction cost.

So, too, in the *Des Moines Gas Company* case, 199 Fed. 204, there is no question that the cost is not esti-

mated by the reproduction method. In fact, Smith McPherson, D. J., uses rather caustic language in criticising the use of this method at all; so if we are to be guided by him remarks in this case we must conclude that we all have been wasting time during these hearings. He says (pp. 207-8):

"One of these is what is called the 'reproduction theory' as determining the present value. \* \* \*

"In my opinion, those who maintain that what it will cost to reproduce the plant, less depreciation, is the true value, in many instances confound the real question with one of many evidences of the real value. Reproducing cost is an evidence of what the real value is after subtracting the depreciation. *But what is to be done with the value of stocks and bonds on the reproductive theory? And what becomes of the original cost on the reproduction theory? And what becomes of the question of the increase or falling off in numbers of consumers? And the same as to increased or diminished expenses?*

"The theory at first thought in all cases is plausible and attractive, but in the end oftentimes utterly illogical and unreliable, originally *adopted as a mere time-saver by mere theorists, and sought to be enforced as against substantial and unbending facts.* If the plant is to be reproduced, when is it to be done? If, when reproduced, will the streets then be paved, and, if paved, paved with what? *Must it all be reproduced at once, or the same covered by a number of years? If but gradually reproduced, why should not such cost go into either the operating or maintenance accounts?* No one can state when it must be reproduced, and a material question arises: What then, as compared with the present, will be the price of labor, material and freight?

\* \* \*

"There are many instances in which the reproduction theory is the best of all methods for getting at the present value, and in other instances the most misleading."

It is evident that the reproduction method of valuing was not approved of at all by the Court in that case, and therefore the case is not in point. But in spite of the above quoted remarks of Smith McPherson, J., in the Des Moines Gas case (decided August, 1912), the same learned Judge used the following language in the Des Moines Water case, 192 Fed., 193 (decided September, 1911) (p. 197):

"The Master has made one finding that has been the subject of more discussion, perhaps, than any other item in the case. He finds that there are practically 38 miles of pipes that were laid in the streets at a time when the streets had not been paved, but that since the laying of those 38 miles of pipe the streets have been paved. To reproduce the same would require an expenditure of from \$108,896, as admitted by the City, to \$210,000, as claimed by the Waterworks Company, more than would be necessary to expend to lay such pipes in unpaved streets. Whatever the true sum is, the Waterworks Company claims such sum to be a part of the value of the plant. This proposition the city denies. But it is not pivotal in this case. Much can be said on each side of the question. *This case seems to have been tried before the Master, by both parties, upon the reproduction theory; that is to say, what this plant would cost if it were blotted out of existence, and the City, or some other company, were to undertake to reproduce the plant.* In such an event, as of course, the pipes must be laid under these 38 miles of paved streets at this additional cost. Looking at the question in that light, the question is, What would it cost to-day to reproduce the plant? and from which, to get at the value of the present plant, there would be deducted the value of depreciation, either by functional or physical depreciation."

The Court came to no conclusion on this point, but this much is clear: That although Smith McPherson, D. J., criticises the reproduction theory as a test for

valuation, he at least recognizes that to be consistent there is no escape from the conclusion that the cost of Paving over Mains should be allowed.

Whitten, in his work on Valuation of Public Service Corporations, cites some of the authorities on this point, and admits a conflict, with the Federal authorities favoring the allowance of Paving over Mains.

So, of the authorities cited by the Master, those above considered can scarcely be said to uphold his contention, which, he says, "is established by the clear weight of judicial and administrative authority."

The other case cited by the Master, *People v. Willcox*, 210 N. Y., 479, is the only one which supports him, and that case is not binding on this Court, and is opposed to the rule as laid down by the Federal decisions. Furthermore, we submit that the remarks of Miller, J., in that case on the question of Repaving over Mains are not well considered or sound in principle. After discussing the contentions of both sides, Miller, J., says (p. 495):

"The cost of reproduction, less accrued depreciation, rule seems to be the one generally employed in rate cases. But it is merely a rule of convenience and must be applied with reason. *On the one hand it should not be so applied as to deprive the corporation of a fair return at all times on the reasonable, proper and necessary investment made by it to serve the public*, and on the other hand it should not be so applied as to give the corporation a return on improvements made at public expense which in no way increase the cost to it of performing that service."

Now we have already pointed out that the reproduction method of valuation has been applied by the City and by the Master "as to deprive the corporation of a fair return at all times on the reasonable, proper and necessary investment made by it to serve the public,"

because the Master continually ignored the records of the Company as to its actual investment for various items of equipment, and based his conclusions on an estimated cost of reproduction which in each case was lower than the actual investment. And the City insistently repudiated the Company's records as measures of value on the ground that they represented piece-meal construction, whereas the City figured on reproduction cost on a single job. So if the cost of reproduction rule is going to be used against the Company in depreciating values we insist that justice demands an application of that rule in our favor where the occasion presents itself.

The Company maintains, and is prepared to show, that the Federal authorities on this point uphold its contention as to the propriety of including values of Paving over Mains in estimating reproduction cost.

In the Minnesota Rate Cases, 230 U. S., 352, one of the latest and greatest decisions of the United States Supreme Court on the subject of rates, Mr. Justice Hughes said, p. 454:

"It is clear that in ascertaining the Present Value we are not limited to the consideration of the amount of the actual investment. If that has been reckless or improvident, losses may be sustained which the community does not underwrite. As the Company may not be protected in its actual investment, if the value of its property be plainly less, so the making of a just return for the use of the property involves the recognition of its fair value if it be more than its cost. The property is held in private ownership and it is that property, and not the original cost of it, of which the owner may not be deprived without due process of law."

It is thus the recognized rule of the U. S. Supreme Court that appreciation in value must be taken into account as well as depreciation. The determination of

the validity of the claim for the cost of repaving rests upon this fundamental basis.

This item was allowed in the case of *Willcox v. Consolidated Gas Company*, 212 U. S., 19. It was argued by counsel for the City that the cost of the paving over the mains where the Company had laid its mains in advance of the paving, and so did not incur the expense, was excluded in the Willcox case and the late case from the New York Court of Appeals, *People ex rel. v. Willcox et al.*, 210 N. Y., 479, was cited in support of this contention. We contended on the argument that the item for the cost of the paving, whether laid prior or subsequent to the laying of the mains, was included in the valuation of the property in the Willcox case, and that the record in that case disclosed that fact and the issue upon that question. Since the argument we have assembled the proofs in support of our position on that point.

In the Master's report in the Willcox case (original, p. 269; reprint, p. 177 of record), the Master used the following language:

"The fact that reproduction cost is so greatly in excess of the cost of original construction is due largely to changes in the character of the city's pavements. Formerly when the gas companies had occasion to open the streets for the purpose of laying new mains or repairing old mains or services, it was their custom to replace the pavement at a cost of from 15 to 25 cents per square yard. Now about 88 per cent. of the streets are covered with new styles of pavement, chiefly asphalt. The gas companies are permitted to open the streets only on condition that the pavements shall be relaid by the contractors for asphalt paving. The expense of this work is paid by the gas companies and amounts to from \$2.70 to \$7.00 per yard, the latter price being for pavement on Broadway. Pavements consisting of granite blocks on concrete are replaced by the

city's employes, and for this work the complainant is charged \$8.00 for the first square yard and \$4.00 for each additional yard.

"Another source of additional cost is the congested condition of the sub-surface of the streets, in view of the multiplication in recent years of various forms of underground construction. In addition to sewer and water mains there are now conduits for electric light, telephone and telegraph wires, underground trolley ducts and salt water mains, besides, in certain streets, the elevated railroad columns, and structures of the rapid transit railway. The result is that in many streets the entire subsurface is so filled with these structures that the replacement or repairing of existing mains is attended with great difficulty and consequent expense. Taking the testimony on this subject as a whole, the preponderance of evidence is very clearly with the complainant, and its estimate of the replacement value of the mains may be taken as reasonable."

To this finding of the Master in the Willcox case, the city of New York proposed the following amendments:

"In allowing a replacement value on mains at \$12,636,000 as against the cost on the books for \$7,852,000, the Master has awarded the value of pavements \$4,784,000 to the Consolidated Gas Company, although when pavements are laid, they are laid at a cost to the property holders of New York City, and at no cost to the Gas Company. \* \* \*

"Pavements: When the City of New York paved over the existing mains of the Consolidated Gas Company (according to the graphic valuations given in the City's Exhibit '50' by Mr. Marks), it expended for pavements:

"Over street mains.....\$4,784,000

"Over house services.... 766,068

"Making a total of....\$5,550,068

"The Consolidated Gas Company has paid nothing for this, but the Master has added it to the com-

pany's possessions" (Original, pp. 450-1; Reprint, pp. 301-2).

This proposed amendment was not allowed.

To the finding of the Master the Attorney General of the State of New York excepted, as follows:

**"Twenty-fifth.**—These defendants further except to the said finding that \$12,636,000 is the value of the mains upon which the complainant is entitled to earn a return, whereas the evidence shows that the same were carried on the books of the company at the sum of \$7,852,000, and that in said finding the Master has allowed \$4,784,000 as an estimated increase of cost to relay all the mains of the said company by reason of the changes in the pavements of the streets of the City, and that the same represents no outlay on the part of the company" (Original, p. 497; Reprint, p. 330).

And the City of New York filed the following exceptions:

**"Eighteenth Exception.**—For that the said Master in his report on pages 38, 39 and 40, has found the value of the mains of the complainant on which it is entitled to a return as against the consumer, to be the replacement value based on the cost of reproduction of the same."

**"Whereas** said Master should have found said value of the mains to be the actual cost of investment therein by the complainant, less the depreciation, as the only fair basis between the complainant and the consumer, otherwise the consumer is charged with the burden of providing a return on an amount in excess of the actual investment of the complainant due to increased cost resulting from modern conditions, pavement, etc., without the consumer receiving the benefits which replacements, at the present time, under the present conditions, would give. That in no sense can the mains of the complainant, many of which have been in the ground for fifty years, be said to be at the present time of a greater value than the actual cost, merely

because modern conditions would not permit duplication of such identical mains at the same cost at the present time" (Original, p. 546; Reprint, p. 360).

"Twenty-third exception.—For that the said Master on pages 41 and 139 has fixed the value of the services on which the complainant is entitled to a return at \$1,994,000, that such amount is based on the **cost of reproduction** and is excessive in that it capitalizes pavements and allows no depreciation; that the complainant has claimed such services depreciate to the extent of 25 per cent. (p. 99 of report); that the proper present valuation is the cost less depreciation, and such value does not exceed \$1,222,228.37, as shown on the books on December 31, 1905" (Original, p. 548; Reprint, p. 361).

But nevertheless, when the Master's report came before Hough, J., it was sustained (157 Fed., 849). He said:

"As to the realty, the values assigned are those of the time of inquiry; not cost when the land was acquired for the purposes of manufacture, and not the cost to the complainant of so much as it acquired when organized in 1884, as a consolidation of several other gas manufacturing corporations.

"It is objected that such method of appraisement seeks to confer upon complainant the legal right of earning a fair return upon land values which represent no original investment by it, does not indicate land especially appropriate for the manufacture of gas, and increases apparent assets without increasing earning power. Analogous questions arise as to plant, mains, services, and meters; the reported values, whereof are the reproductive cost less depreciation, and not original cost to the complainant or its predecessors" (854).

"I think the method of valuation applied by the report to land, plant, mains, services, and meters lawful. (856) . . .

"It results, from these findings, that the value, as of the time of the beginning of this suit, of complainant's tangible property, invested in and representing the business sought to be regulated by the statutes and order in question, is as follows:

Real Estate .....	\$11,155,815
Plants .....	15,500,000
Mains .....	12,636,000
Services .....	1,994,000
Meters and Miscellaneous .....	4,100,000
Working Capital .....	1,616,000
Total of tangible assets .....	\$47,001,845"
	(861)

In the appeal to the Supreme Court of the United States in the twentieth assignment of error on the part of the City of New York, it is alleged:

*"Twentieth.*—In sustaining the report of said Master in Chancery finding the value of the mains of the complainant on which it is entitled to a return as against the consumer, to be the replacement value based on the cost of reproduction of the same, whereas said Master should have found said value of the mains to be the actual cost of investment therein by the complainant, less the depreciation."

There is no question that the issue raised by the cost of paving over mains came before the Supreme Court of the United States on appeal and was passed upon by that court. These issues were properly presented by exceptions and were urged and discussed by counsel in their briefs and by the Court and counsel in oral arguments. In order not to encumber this case with lengthy quotations from the brief in the Consolidated Gas case, we beg to refer to these briefs and transcripts of oral arguments in the Consolidated Gas case, in order to point out to the Court that this question of paving over mains was actually before the Supreme Court and was covered by its decisions.

The Supreme Court of the United States on the appeal (212 U. S., 19) approved the method employed in determining the value of the tangible property of the company, and say:

"Altering the finding of the Court so far only as to place the value of the franchises at the time agreed upon in 1884, \$7,781,000, the total value upon that basis of the property employed by the company would be \$55,612,435" (48).

"And we concur with the Court below in holding that the value of the property is to be determined as of the time when the inquiry is made regarding the rates. If the property, which legally enters into the consideration of the question of rates, has increased in value since it was acquired, the company is entitled to the benefit of such increase" (52).

The Federal Court in the decision in the Willcox-Consolidated Gas case, 157 Fed., determined the present value of the company's property by determining the reproduction cost new less depreciation, and included in the value of the mains and services the cost to reconstruct those mains and services under the conditions then existing, and by that process increased the value of the mains and services over the actual cost to the company more than \$5,500,000, and the method of determining that valuation was approved by the Supreme Court of the United States on the appeal.

*In re Appleton Water Works Company*, 6 W. R. C. R., 97, the Commission says:

"It is contended on the part of the company that the Commission erred in disallowing the estimated cost of laying mains and services in streets which are now paved, but which were not paved at the time such mains and services were laid (121).

"It was not the intention in such consideration of the subject to deny that the cost of reproducing the plant new, under the existing conditions, should include such estimated cost, but the inquiry was there directed more particularly to ascertaining the cost of reproducing the plant new in the manner of its actual construction. \* \* \* For the purpose of the present inquiry it is conceded that the cost of

reproduction new, including the item of paving, must be regarded as an evidentiary fact in reaching a final conclusion, and it may be added that in no case, either for rate-making purposes or otherwise, has the Commission ever omitted from consideration the item of paving in ascertaining the cost of the reproduction new" (122).

Where there is no issue as to the plant being over-built or improvidently built, then the present value of the plant is the basis of valuation and the present value of the plant in such cases and under such circumstances is determined by the reproduction cost new less depreciation. *City of Knoxville v. Knoxville Water Co.*, 212 U. S., 1.

The question of the propriety of including in the value of mains the cost of removing and replacing pavement subsequently laid over mains arose in a recent case in the United States District Court of the Northern District of California, Second Division. The case is *Pacific Gas & Electric Company v. City and County of San Francisco*. The taking of testimony in this case has been referred to a Master, who has filed his report, but said report has not as yet come before the Court for consideration. The Master in that case treats at some length the question of mains under pavement subsequently laid. He states concisely the reasons advanced by the City of San Francisco why this item of value should not be allowed, as follows:

- (1) It (the paving) does not represent property of the company;
- (2) It does not represent investment of the company;
- (3) It is taxing the rate-payer twice, once for the cost of installing pavement and second in the gas rate;
- (4) It is misapplying reproduction theory.

He states that the objections of the City as quoted are identical with those of Commissioner Maltbie of New York Public Service Commission, First District, which were advanced in the case of *People v. Willcox*, *supra*.

He considers the Cedar Rapids case and dismisses the opinion of Smith McPherson, J., as not convincing, because the Court there had adopted as the measure of value the cost of a substitute plant, a test which the Master in that case rejects.

He then takes up the objections separately and comments on them. As to objection No. 3 above quoted, he says:

"The point is made first that if subsequent paving over mains is included in the valuation of those mains, the consumer is in effect taxed twice, once for the paving and again indirectly in an increased gas rate. But this would be the case if the company was established and the mains laid after the paving was done; so that is not an essential objection, if objections properly exist."

As to objection No. 1, that the paving does not represent property of the company, he says:

"In the second place it is urged that the item should be excluded *because the paving is not owned by the company*; but this misses the point, since no claim of that sort would be made, the gas company's contention being that the *pipe*, which admittedly it owns, is worth more by reason of its location, in the same way that its lands have appreciated in value, by reason of location with reference to the growing community around it. The error of dwelling on the ownership of the pavement itself pervades the whole opinion."

As to the objections that the paving does not represent an investment of the company, he says:

"Finally, Commissioner Maltbie (and counsel

here), adds as a reason for disallowing that the subsequent paving represents no expenditure or investment on the part of the public service company. This is a logical objection and presents the essence of the decision."

Then he proceeds to consider that objection and considers authorities on the methods of arriving at present value, and concludes that the two theories of valuing a property, one by ascertaining the present value through reproduction, and the other by determining the actual investment, can not logically be applied in the same case. He says:

"We must, in truth, face the fact that present value is one standard of valuation and actual investment is another and quite different standard of valuation. Of course, using the latter standard, we should omit such an item as subsequent paving.

. . . . .

"The theories come sharply into conflict on this question of paving over mains. The question is, which theory is settled by authority? It will not do for a rate-fixing body or a court to apply cost-of-reproduction where it leads to reduced rates, and to abandon it where it leads to advanced rates. Consistency is essential to justice. It is not at all impossible that the situation as regards paving over mains might be reversed; that mains might originally be laid under asphalt and concrete, and in the course of years improvement in the paving might lead to replacement with pavement of equal or greater efficiency at largely reduced cost. In neither case would the *pavement* belong to the utility. But in the valuing the company's mains would we apply actual investment and thus prescribe high rates, or cost of reproduction, implying reduced rates to the consumers?"

. . . . .

"Enough has been said to show that 'present value' is not equivalent to 'investment,' 'original

cost.' I can, at this time, think of no better method to determine present value (market value being eliminated), than the method of cost-of-reproduction less accrued depreciation. If this is not actually established in law as the proper method, it certainly represents the trend of the decisions."

He concludes:

"I conclude, therefore, both on reason and authority, that the City's claim of deduction of \$644,000 for the item of paving over mains, must be disapproved."

We submit that the Master in the Lincoln Gas case was in error when he refused to allow the value of \$146,682 as a part of the Reproduction Cost of the Mains and Services. This is a considerable sum, and the Company demands that it should be included in the value of its property. The Master says that "To permit a public service corporation to justify a rate claimed to be excessive by pointing to a costly street improvement made by the public at its own expense, hardly accords with good sense." From this we must conclude that the Master believes it "accords with good sense" to apply the reproduction method of valuation only where such method would succeed in reducing the value of the company's property, and to abandon such methods where the contrary might be the case. We submit that it better accords with good sense and good justice to adopt a method of valuation which is applied consistently throughout the case, and not one which may be employed or ignored, as the Master, in the exercise of his discretion, deems expedient.

On the question of the cost of pavement subsequently laid over mains, there was considerable testimony introduced by the Company and by the City. The net result in dollars between the estimates of the City and the company's witnesses is explained to a considerable

extent by the fact that the City sought to reduce the cost by the theory that in reproducing the Company's property they would save expense by laying mains in the part of the streets known as the "park-ways" instead of under the paved portions of the streets where the mains now are (Transcript, p. 1123).

The ordinance of the City was introduced showing in effect that the gas mains were required to be laid by the Company out in the paved portion of the street, and Mr. George L. Campen, former city engineer, testified that the Company is required to secure a permit for the laying of gas mains, and that the engineering department of the City required the mains to be laid out in the streets so that the mains would be under the paved portion of the street. The position taken by the witness for the City was in effect that he would expect to get the law changed in this respect, and would expect to get permission to lay the mains back in the parkway. Mr. Campen testified that the water department of the City as well as the Gas Company was required to lay its mains out in the paved portion of the streets. The evidence shows that the parkways are plotted and planted with grass, shrubbery and trees, and generally stand up several feet above the paved portion of the street. The evidence shows that the construction of the gas mains in the parkway would be injurious to the trees and shrubbery and in the case of escaping gas from the mains would result in the killing of the trees and shrubbery, and shows that it would be impracticable from an engineering standpoint to place a single main on one side of the street back in the parkway, with the expectation of being able to serve both sides of the street; that there would be additional cost in sinking the mains deep enough in the parkway to carry the services from the main across the street under the paving to tenements on the opposite side of the street or an additional cost

in installing drip pots with each service crossing the streets from the main; that with such additional cost in order to get back into the parkway you would still have to cross the paved intersection of the street with the mains in each block; that practically the paved intersection of the street is equal to one-fourth of the distance across the block, so saving could only accrue the three-fourths in getting back into the parkway. The City presented no computation on the additional cost in placing the mains back in the parkway, and presented no definite assurance that the law would be changed to permit it. In this situation, even if his theory were admitted, there is no basis in the record for a valuation of the mains and services except as they are now located.

Mr. Lea's Exhibit "425," subdivision "E" (Transcript, p. 1372), shows the total number of feet of mains under paving to be 190,037, and the City's witness, figuring on the parkway, shows the length of mains under paving to be 68,978 feet, or a saving of 121,459 feet, made up as follows:

Mr. Lea shows 1,740 feet of 1¼-inch mains under paving, and for this amount A. D. Adams, in the reproduction of the property by placing the mains back in the parkway, would show 348 feet under paving. Mr. Lea shows 97,519 feet of 2-inch main under paving and A. D. Adams shows 19,176 feet, or a difference of 78,343 feet. Mr. Lea shows 406 feet of 3-inch main under paving; A. D. Adams by his method shows 81 feet under paving. Mr. Lea shows 61,023 feet of 4-inch mains under paving, and A. D. Adams shows 19,648 feet under paving, or a difference of 41,375 feet. Mr. Lea shows the net construction cost of the paving over the mains to be \$111,365, and A. D. Adams by his method for reproduction of the property shows a net construction cost for paving over mains of \$34,518. So the difference

in dollars due alone to the method employed by A. D. Adams in placing the mains back in the parkway is \$76,847. This is a substantial sum, and it may be well to inquire if there is any authority or precedent justifying the method employed by the City. It seems fundamental in determining the present value of this property by the reproduction cost less depreciation, that you would be compelled to reproduce this property located and situated as it is and not substitute for it some other kinds of property, or property in some other situation. You cannot measure the present value of this property by determining a value of property which in the judgment of the witness may be the equivalent. It is this particular property, situated as it is, that is to be valued, and the reproduction cost of it as situated is accepted as the measure of its present value after deducting depreciation. If the City may place the mains back in the parkway, which the City did not permit the Company to do, and in that way make a saving in cost, then the City might substitute different sizes and kinds of mains, and might work a saving in the reproduction cost of a distribution system equivalent in capacity and service to the one in question. If such a basis were permitted then the Court would have to deal not only with the question of values but with the engineering questions as to whether the proposed substitute was practical or the equivalent, and the engineering problems and opinions upon that subject would probably be more at variance than opinion evidence on value alone. The courts have been careful to restrict the inquiry to the question of the reproduction cost of the present property and have not permitted engineers to speculate on what they would regard as the equivalent. This would seem especially appropriate where the engineer for the city is without experience and his advice limited to a study of statistics.

In the *Willcox-Consolidated Gas Company Case*, 157 Fed., 849, the Court in considering the proper method of valuation, say:

"In every instance, however, the value assigned in the report is what it would cost presently to reproduce each item of property, in its present condition, and capable of giving service neither better nor worse than it now does. As to all of the items enumerated, therefore, from real estate to meters, inclusive, the complainant demands a fair return upon the reproductive value thereof, which is the same thing as the present value properly considered" (854).

This method of valuation and of determining the present value of the property was approved by the Supreme Court of the United States on the appeal in this case.

*Kennebec Water District v. City of Waterville*, 97 Me., 185:

"To enter upon a comparison of the merits of different systems—to compare this one with more modern systems—would be to open a wide door to speculative inquiry, and leads to discussion not germane to the subject. It is this system that is to be appraised in its present condition and with its present efficiency."

To the same effect *Brunswick & T. Water Dist. v. Maine Water Company*, 99 Me., 371.

*Amount of Cost of Service Pipes Collected from Consumers.*

In his findings as to the value of Service Pipes, the Master eliminated the sum of \$30,484, which is the sum collected by the Company from the consumers to defray part of the expense of installing said service. His reasons for so doing are expressed in his report, as follows:

"Whether the reason for excluding the cost of pavement over mains from the valuation requires also the exclusion of the cost of service pipes paid for by the gas consumers, has not, to my knowledge, been adjudicated; but the governing principle is, it seems to me, as applicable in one case as in the other." . . .

"Of course, in valuing a utility, no distinction can be made between property acquired by purchase and property acquired by gift or otherwise. The value of whatever the company owns and devotes to that public service regardless of the means or method of acquisition is a just and proper standard by which to measure reasonable rates. But it can not, I think, be said, looking at the matter broadly, that the Company is the owner either technically or equitably of the service pipes. It bought and put them in, it is true, but when it was reimbursed by its patrons for the cost, can it be supposed that it still intended to retain title and the right to remove them at pleasure? A more reasonable inference is that in every case both parties to the transaction regarded the pipes when paid for as belonging to the owner of the tenement with the right on his part to use them if so inclined in connection with a service furnished by a rival company or for any other purpose, even though entirely unrelated to the gas business. They can not, it seems to me, consistently with the principle above stated by Justice Harlan, constitute in part the basis for a rate that can be regarded as entirely fair to the public. The gas consumers have paid \$30,484 of the amount claimed by the company for putting in service pipes, and this item I have eliminated from the valuation" (Transcript, pp. 43-4).

This is another important item in dispute. The comparatively small portion of the total cost of putting in these services that has been collected from the property owners is shown in Exhibit "89," (Transcript, p. 1826), and is shown to be in the amount of \$30,484.43. In the main the costs were borne by the Company, however,

and the services constitute an essential part of the distribution plant. The net construction cost for the services, exclusive of pavement as shown by Mr. Lea, is \$111,689, and as shown by A. D. Adams is \$69,939.39.

The Net Construction Cost, as found by the Master, is \$76,116. The difference between the Master's findings and Mr. Lea's estimate is \$35,573, of which \$30,484 is accounted for by the Master's refusal to allow, in the value of the Services, the amount repaid by customers.

At this point we shall only consider the claim of the company that it is entitled to have considered here a fair valuation of all of the property used by the Company in the service of the public.

The Court will find it necessary to discard the petty contention of the City, that because these services are laid in private grounds, in part at least, they must be treated as he private property of the consumer, and regarded as a gift or gratuity bestowed by the Company for which it can claim no compensation. Mr. Justice Brewer once answered such a contention, as follows, in *National Water Works v. Kansas City*, 62 Fed., 853, 865:

"The fact that it is a system in operation, not only with a capacity to supply the City, but actually supplying many buildings in the City—not only with a capacity to earn, but actually earning—makes it true that 'the fair and equitable value' is something in excess of the cost of reproduction. The fact that the company does not own the connections between the pipes in the streets and the buildings—such connections being the property of the individual property owners—does not militate against the proposition last stated, for who would care to buy, or at least give a large price for, a waterworks system without a single connection between the pipes in the streets and the buildings adjacent. Such a system would be a dead structure, rather than a living and going business. The additional value created by the fact of many connections with buildings, with ac-

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tual supply and actual earnings, is not represented by the mere cost of making such connections. Such connections are not compulsory, but depend upon the will of the property owners, and are secured only by efforts on the part of the owners of the waterworks, and inducements held out therefor."

The company cannot compel any property owner to lay a service into his house. Neither can the property owner tap the Company's mains. In a sense the pipe imbedded in the private ground and tenement of the consumer may be regarded as private property, just as is the main in the street the property of the company. It is the connection which joins the private service with the Company's main that makes the distributing plant useful. The service which extends into the private tenement is an indispensable part of the Company's distribution system. The drop and the instrument extending into the private tenements are essential parts of the local telephone system. In both cases the equipment installed in private tenements are universally regarded as parts of the utility equipment.

The Gas Company has borne the cost of installation of these services, including the pipe connections to gas stoves and ranges. The money was prudently expended, and is used in giving the public service. It was a public duty of the Company to properly stimulate the sale of the utility's product, and to do so was essential to its profitable operation. From whatever angle the situation is viewed, the services and connections must be valued as a part of the Company's property on which it is entitled to a full return.

The issue here so far as it respects the \$30,484 contributed by certain consumers for gas services is not an issue of ownership of property. The services throughout are a part and portion of the distribution system

and are a part and portion of the property being used in the public service. The ownership of that property is not the issue and is unimportant in the matter of valuing the property. There is to be a fair valuation upon all of the property used and useful in the manufacture and sale of gas. If a portion of the consumers have contributed \$30,484 towards the construction of the services the public cannot claim the benefit of that investment and cannot claim that that property shall not be valued here as a part of the distribution system. To do so would be to deny any return upon that investment, and give to the public a benefit of that reduction in value without compensation. If these services to the extent of \$30,484 have been paid for by certain consumers, then those certain consumers who made that contribution are entitled to look to the Company for an adjustment by reason thereof and it is no concern of the general public. The public or the City in this proceeding is in no position to say that the investment in these services to the extent indicated and contributed by the private consumer shall be a gratuity to the public and the use thereof shall be uncompensated. Those investments in the services which constitute a part and an essential part of the distribution system are to be valued as a part of the property which is to furnish this service. The ownership or the question of payment for the property of the company is not an issue. The situation, however, with respect to these particular services might call for an adjustment by the company with those who contributed the money, but such adjustment could not accrue to the benefit of one who made no such payment.

The authorities heretofore cited are to the effect that in the valuation of the property the Courts or Commissions do not inquire into the manner in which the property of the utility corporation, devoted to the public use,

was obtained, whether by purchase, inheritance or as a gratuity. The ownership of the property is not the question to be determined. It is the valuation of the property and all of the property involved in the manufacture and sale of gas.

*Tighe et al. v. Clinton Telephone Co.*, 3 W. R. C. R., 126.

*In re Application Public Service Gas Co.* (N. J.), 1 B. P. U. C., 470.

In this view of the law and under the facts as shown, there can be no serious question or controversy in the matter of valuing all of the distribution system and valuing all the property that is used and useful in the manufacture, sale and distribution of gas in Lincoln.

The testimony on the former hearing showed that the company had expended on account of piping for gas ranges \$16,500 (Transcript, p. 116).

Mr. Honeywell testified:

Q. "How about connections for gas ranges and so on?"

A. "We pipe to the new range the first time without charge; after that we charge the consumer for it." (Transcript, p. 1273.)

The \$16,500 for this item represents an actual expenditure by the Company and is a part and portion of the property used and useful in the manufacture, sale and distribution of gas and of course is to be included in the valuation of the property. This amount represents the net amount charged into the construction account of the Company after all credits have been allowed on account of any payments by the consumer or on account of any charges for any part of the labor and material entering into the operating accounts. It is a part of the investment of the Company in that portion of the distribution system and is to be valued as a part

of the distribution system of the Company. No valid objection or good reason can be given for excluding this investment in piping for gas ranges. The gas ranges in stock and the gas fixtures are a part of the Company's property and have been inventoried and valued in this proceeding. The item was allowed upon the former hearing and should stand as allowed by the court.

In *State Journal Printing Co. v. Madison Gas & El. Co.*, 4 W. R. C. R. 501, the Commission says:

"To put in piping or connections between the curb and the house, wholly or partly at their own expense, is a practice that is quite common among public utilities. This practice is undoubtedly quite effective as an aid in extending the business. \* \* \* In order to be a success from a financial point of view, public utilities, the same as other enterprises, must have customers, and these, even for the former, are not always secured without cost. This is especially true in cases where the desire is to secure this business more promptly or with less delay than that which is quite common where the demand for the services is left to take its course and is not stimulated by artificial means. In a general way it can perhaps, be said that the greater the business of such a utility is, the lower are also its rates and the better the services it renders. Extensions in their business, even when secured through the expenditures of money and efforts are therefore in line with sound business principles and in harmony with the best interests of the plant as well as of its customers" (588).

In view of the above authorities and considerations, we submit that the Master erred in refusing to allow that portion of the cost of Services which was paid by the consumer.

### **Working Capital.**

The Master in his discussion of the subject of Working Capital in his report concedes the necessity of making some allowance for this item in determining the value of the Company's property, which should be added to the aggregate values of the other items of such property. His only problem, therefore, was to determine the proper amount of said allowance. In the former trial of this action, Munger, J., allowed \$50,000 for Working Capital. Mr. Lea's estimate for the proper allowance to cover this item was \$72,037.64. (Transcript, p. 418.) Mr. A. D. Adams for the City gave an absurd estimate that \$20,000 was a sufficient sum. The Master allowed \$60,000, but why he picks out this particular sum is not quite clear. He states in his report:

"That evidence upon this branch of the case is far more complete than at the former trial, and relates to a different date, but it does not seem to require a very much larger allowance than was then made by the court." (Transcript, p. 46.)

Just what elements the Master took into consideration in calculating his figure of \$60,000, is not disclosed by his report.

Mr. Lea in Exhibit "7," section B (Transcript, p. 1300), sets out in full detail the items constituting Working Capital and by his method showed clearly his familiarity with the usual custom in the treatment of this item of plant value. He said:

"The Company in the conduct of its business has certain amounts owing to it, but on the other hand, it owes other people certain amounts for the current operation of its property, so what we are trying to arrive at here is the difference between those two, which is the amount of money the Company must have for the conduct of its business as Working Capital."

He testified that the amount of Working Capital herein used was reduced to the minimum and considered it to be a reasonable Working Capital for the business being done here by a concern of this size; any additional credit which the Company might be able to get through its purchasing power would be reflected in the value in the property as a whole and not in the present worth of the Working Capital as such (Transcript, p. 418). The net result of his computation is that he has taken as Working Capital the difference between the current assets covering material, accounts receivable, advance payments for insurance and expenses, and cash on hand and in banks, and deducted therefrom the current liabilities of the Company, representing the current credits in the form of bills payable, accounts payable, amounts due for wages and salaries, accrued interest and customers' deposits. His net result, as an amount for Working Capital, is \$72,037.63.

Mr. Wettling, speaking with regard to the amount of working capital as set up by Mr. Lea, said:

"A. The Exhibit '7-B' . . . amounting to \$72,037.83 would constitute then the difference between the current assets and current liabilities and is commonly considered working capital, and is in conformity with the usual custom for arriving at the working capital of a concern" (Transcript, p. 1273).

"Q. If these balances are correctly stated, would it indicate that the difference there was the capital actually employed at the time these balances were taken for that working capital? A. Yes, it indicates that as a necessary part of the capital of the Company" (Transcript, p. 1274).

The testimony clearly indicates the necessity for the allowance of this element of value and the exhibits clearly set out the items which make up the amount and a careful analysis of the exhibits will demonstrate that none of the items can with justice be omitted.

Whitten, in his work on *Valuation of Public Service Corporations*, Chap. XIV, cites a number of cases and quotes part of the decisions relative to this matter of working capital from some of the cases at pages 289 to 302, inclusive.

To cite the cases which specifically uphold the propriety of allowance for working capital in arriving at the fair value of a public service corporation would be to cite practically every rate case decided by the Courts and Commissions in the past ten years, but as indicating the reasonableness of the claim in this case we call the Court's attention to the amount and percentages allowed in a few of the well-considered late cases.

In the Des Moines Gas case, Master's opinion and findings, page 60, allowance is made for working capital \$140,000 and in addition thereto for meters in stock \$6,603. This is equivalent to 7 per cent. on the physical value of the plant. In *Bonbright v. Geary*, 210 Fed., 44 the Court raised the allowance of \$23,500 made by the Commission to \$50,000; the total value of the plant was not in terms definitely determined by the Court, but the allowance is between 6 and 8 per cent. of the value, so near as may be determined.

In *State Journal Printing Co. v. Madison G. & El. Co.*, 4 W. R. C. R., 550-554, and page 556, the Commission allowed \$49,674 on a total reproduction value of \$946,602, being 5.5 per cent. plus.

In *Pioneer Tel. & Tel. Co. v. Westenhaver*, 29 Okla., 429, the Court criticised as inadequate the allowance of the Commission of \$2,433.56 and added thereto \$7,249.24, making a total allowance for this item of working capital of \$9,682.80 on a total plant value of \$94,663.69 and being over 10 per cent. In Public Service Gas Company case reports of B. of P. U. Commissioners of New Jersey, Volume 1, 490-493, the Commis-

sion allowed an amount equivalent to 5.3 per cent. of reproduction new value, including going value, which amount was practically 7 per cent. of the reproduction value excluding going value. In the Cedar Rapids Gas case the Court allowed an amount equivalent to practically 9 per cent. of the value for the plant.

In the *Lincoln Tel. & Tel. Co.'s Application No. 1637*, Nebraska State Ry Commission, decided June 26, 1913, the Commission said:

"Working Capital.—No telephone business can be properly conducted without a certain amount of working capital, in the form of cash in banks and accounts receivable. These latter items will necessarily fluctuate with the size of the plant, with the diligence observed in making collections, and somewhat with the ability of the people to pay promptly, as well as the habits of the communities in paying their bills. In the meantime the corporation must pay the wages of its employes promptly, must also pay promptly for stores and supplies, or, if it does not, must pay interest thereon and funds so employed or so withheld from the use of the corporation for its legitimate needs, must necessarily pay rate of return, as well as funds employed in the actual physical plant placed at the disposal of the public.

"From studies made, the Commission feels that an allowance of about \$109,000 for working capital, together with stores and supplies, for a company of this size, would seem reasonably necessary; such allowance would be the equivalent of 6 per cent. on the reproduction value."

Calculating on this same basis, the allowance for this item in this case would have to be considerably in excess of \$75,000, and based on the various percentages allowed in the cases above cited, the allowance in this case would vary between \$63,000 and 120,000 approximately.

That there can be no question of the propriety and necessity for an allowance in a substantial sum for this item is clearly shown in the printed record in this case, where, on the basis of the value of the plant and business in 1907, the Court allowed \$50,000; this amount was insufficient at the time, but assuming it to be proper as of that time and making due allowance for the growth of the business in the interim and the additions to the plant amounting to approximately \$250,000, as disclosed in the record, the sum now contended for cannot be questioned and must be determined as reasonable and conservative.

The calculation by which Mr. Lea arrives at his amount of Working Capital is accurate as well as logical. Why the Master deemed it to be too high or why he chose the figure \$60,000 or what was the Master's method of arriving at that figure, is not disclosed by the record. We submit that a proper allowance for Working Capital is \$72,037.63.

### **1912 Operating Expenses.**

The Master next takes up for consideration the Operating Expenses for 1912. There is no question of the actual facts. They are:

Cubic feet of gas sold in Lincoln.....	227,297.000	
Gross revenue on Lincoln business.....	\$273,175.93	
Operating expenses, as shown by Company's books .....	\$173,689.87	
Plus excessive residual credit.....	2,722.23	
Plus depreciation reserve, as estimated by Mr. Lea .....	20,865.03	197,277.13
Net Revenue .....		\$75,898.80

(Transcript, p. 48.)

The Master limits himself in his discussion of these Operating Expenses for 1912, to two points, to wit:

"(1) To what extent, if at all, were the disbursements made by the Company for Operating Expenses so recklessly or improvidently made that they ought not, in justice and fairness to the public be allowed and considered as legitimate factors in determining what constitutes a reasonable rate for gas in the City of Lincoln; and,

"(2) What amount, in addition to the disbursements for the renewals and repairs shown in the record, should be allowed as a depreciation reserve?" (Transcript, p. 48.)

The first item of so-called reckless and improvident disbursements, which the Master takes up, is the cost of promotion of new business, \$19,692. Although admitting that money must be spent to stimulate business, the Master said that this sum is "so extraordinary as to arrest attention and excite inquiry at once." He calls attention to the fact that litigation was pending to reduce the Company's rate; that it was the Company's "paramount duty" to be conservative; and yet he can not discover any "judicious retrenchment or wise economy." He thinks that \$12,000 a year is a sufficient sum for this purpose, and that is what he decides to allow, although he admits, "My conclusion upon the point here considered is one in which I do not feel any high degree of confidence, but it is the one that seems, so far as it may exert an influence on the final decision, best calculated to bring about a just result" (Transcript, p. 50).

The Master seems to have overlooked for the moment his language used in discussing the question of Working Capital. He was there considering the advisability of the Company's investing money in gas appliances to be sold for the purpose of stimulating the purchase of gas. He there said:

"The company was, in keeping and selling gas appliances, employing what seems to be a well rec-

ognized and perfectly proper means of getting business. Increase of business is, or ought to be, beneficial to the public as well as to the company. \* \* \* The fact that those appliances were perhaps handled at a loss is not at all decisive. *In all lines of business, it is commonly regarded as sound policy to incur a present inconsiderable loss with a view of securing thereby a larger future gain*" (Transcript, p. 46).

But when the Master comes to the question of expenditures for new business, his attitude in regard to such disbursements seems to have undergone a change.

Now there is an implication in the language the Master uses, when considering the operating expenses for 1912, which the Company asserts is entirely without foundation. The implication is that the Company, facing this suit, proceeded to spend money recklessly and improvidently, so as to pad its operating expense account with amounts disbursed for new business, and with excessive executive salaries, with a view to defeat this rate ordinance. This implication is unwarranted by the facts as they appear in the record, and we propose to demonstrate this by a consideration of the testimony.

*As to Amount Expended for "New Business."*

This utility was created in 1873. From that year to 1902 its sale of gas increased from 0 to 75,691,000 cubic feet per annum. In 1902 a "new business department" was formed and a separate account was placed on the Company's books, to which was charged all money disbursed by this department. This department had a dual purpose, one of which is not revealed in its name, *i. e.*, to secure new business and to hold old business. The formation of this department was concurrent with a campaign for new business which the Company decided to institute. The result of the campaign is shown

in the increase of gas sales secured. The actual figures speak for themselves. From 1902 to 1912 the number of cubic feet of gas sold annually increased from 75,691,000 to approximately 230,000,000. In other words, although it took the utility thirty years to bring the annual sales from 0 to 75,691,000 cubic feet, yet through the efforts of the new business department, in ten years the sales were increased from 75,691,000 to 234,386,000. We beg to call the Court's attention to the chart showing in the form of a curve the precise way the increase occurred (Transcript, p. 1358). In 1900 the population of Lincoln was approximately 40,000 as shown by the United States census, while in 1910 it was approximately 44,000, an increase for ten years of only 4,000 inhabitants; so that the increase in gas sales was due solely to the activity of the Gas Company and not to any unprecedented increase in the population of Lincoln.

It must not be supposed that this increase was accomplished without the expenditure of considerable sums of money. The records of the Company show what these disbursements were:

1903.....	\$5,578.97
1904.....	16,400.65
1905.....	15,919.73
1906.....	13,432.41
1907.....	13,394.04
1908.....	11,634.96
1909.....	14,019.36
1910.....	16,152.75
1911 .....	18,985.52
1912 .....	19,692.64

(Transcript, p. 1386.)

From this table it will appear at once that the Company spent more money in 1904 than it did in any subsequent year until 1910. And yet there was no rate suit

pending in 1904. The rate ordinance was passed in November, 1906, and during the years 1906 to 1908 the expenditures decreased from \$13,432.41 to \$11,634.96, while this suit was actually in litigation. Does this show any tendency on the part of the Company to needlessly increase its disbursements? We submit that the contrary is the case.

The reasons for the increase from 1909 to 1912 were given by Mr. B. C. Adams, the manager of the plant, in his testimony (Transcript, p. 668). He stated that with the introduction of the Tungsten electric lamp, current could be bought so cheaply for illumination purposes that electricity began to supplant gas in the lighting field. The old customers were substituting electric lights for gas lights, and the newer houses were not being piped at all for gas lights. The result was that the use of gas was being confined more and more to cooking purposes, and inasmuch as Lincoln has no large industries using gas, it began to appear that the field of operation for gas sales was being limited to kitchen ranges. That being the case, it was necessary to put forth extraordinary effort to work that branch of the business to the utmost; and this took money, and the Company spent it for that purpose.

Mr. B. C. Adams predicts that electricity may eventually supplant gas for heating and fuel purposes, as well as lighting, and points to the number of electric irons that were being sold in place of gas irons (Transcript, p. 668-9).

In view of all these circumstances, the expenditure of the amounts appearing in the new business account was an urgent necessity, but the greatest sum thus expended in any one year was \$19,692.64 in 1912. Was this excessive? The Master seems to think so. We can determine this in a convincing manner by the Company's experience in the following year, 1913. In 1913 the Com-

pany expended for holding and acquiring business the sum of \$10,399.90 (Transcript, p. 2062, sub. G. 14), which is appreciably lower than the year before. What was the result? The sales of gas in the City of Lincoln *fell off* from 227,297,000 cu. ft. to 219,248,900 cu. ft.; the gross returns from gas sales fell off from \$273,175.93 to \$265,124.17, and the net earnings from \$75,898.80 to \$63,294.29 (Transcript, p. 2064).

This was the first time the Gas Company's sales had decreased since 1895. We submit it is apparent that the falling off was due in a marked degree to the reduction of the disbursements for holding and acquiring business: And yet the Master sees his way clear to grant an allowance of only \$12,000 for 1912 to cover this expense. We insist that his conclusions can not be justified by the evidence.

*As to the Amount of Executive Salaries.*

The other item of expense, which the Master criticises, is the amount of executive salaries. He states that they "in comparison with those paid by other utilities producing and selling about the same amount of gas, are apparently excessive." He fails, however, to make any actual comparison with any other specific utilities, and we are, therefore, at a loss to know the basis of his conclusions.

This matter is such a small one that we would not take the time to discuss it at length, unless it was so obviously an erroneous conclusion, and unless there was not contained in the Master's remarks a rather serious implication. The Master states:

"A majority of the stock of the Lincoln Gas & Electric Light Company is owned and controlled by Henry L. Doherty & Company, of New York, a co-partnership engaged in banking and manufacturing and controlling through stock ownership over

one hundred utilities—gas, water, electric and transportation—which it operates in practically the same manner as it does the Lincoln plant" (Transcript, p. 51).

The statement that Henry L. Doherty & Company own or control a majority of the stock of the Company is quite untrue. The evidence shows clearly that such is not the fact. The point was brought up during the hearings and definitely settled by the evidence (Transcript, pp. 778, 782). There is no foundation for the Master's remarks, and it becomes especially serious because it seeks to convey the impression that Henry L. Doherty & Company, as majority stock owners, are mulcting the Company by means of excessive executive salaries.

The record shows the salaries are as follows:

	Pres.	V. Pres.	Chr. Bd. Direct.	Mngr.	Sec. and Treas.	Asst. Sec. and Treas.
1904	\$3,000			\$1,000	\$1,000	\$300
1905	3,000			1,450	1,209	300
1906	3,000			1,800	2,999	300
1907	3,000			2,325	1,083	300
1908	3,000			2,500	1,200	300
1909	3,000			2,400	1,500	300
1910	2,126	\$2,200	\$2,750	2,750	1,675	300
1911	2,266	800	3,000	3,000	1,375	300
1912	2,400		3,000	3,600	1,500	300

(Transcript, pp. 1568-84.)

During the period covered in the above tabulation it appears that the salaries paid the members of the firm of H. L. Doherty & Company were as follows:

From 1904 to 1909 Mr. Doherty was paid \$3,000 as President; from 1910 to 1912 he was paid \$3,000 as Chairman of the Board of Directors. From 1910 to 1912 Mr. F. W. Fruecauff was paid a salary of \$2,400 a year, first as Vice-President and then as President. When he ceased to be Vice-President no salary was paid to that office.

The Master evidently thinks that the Company did not get value received for these salaries, but the evidence shows clearly how the Lincoln Company was benefited by its connection with Henry L. Doherty & Company. This was proved quite clearly by Mr. B. C. Adams, the Company's manager, whom the Master describes as "an exceptionally efficient and capable man, having a thorough technical and general knowledge of the gas business." He testified as to the general benefits derived from the connection with Henry L. Doherty & Company, as follows:

"We do not have regular meetings, hardly, but occasional meetings of the managers that operate in consultation with Henry L. Doherty & Company. I attend those meetings, in which all the engineering problems in these utilities are gone over to a large extent; the purpose of these meetings is to discover improvements and modern methods of operation to make improvements in our operation; have endeavored to keep up with the improvements and modern methods and keep myself advised of any new schemes that seem practicable; consult universally with Henry L. Doherty & Company in matters of engineering problems that arise in this company, and regard that as good practice; I don't think anyone operating a property of this size, or any size, should take it upon themselves to give the last word in all the undertakings necessary to develop the property, it wouldn't be fair; it is customary when troubles are developed and schemes for meeting them to submit it to Mr. Doherty and the Doherty Company; Mr. Doherty acts as a consulting engineer for this company, and their own properties; at all times I have the advice and benefit of that engineering company and avail myself of it absolutely. . . . I hardly think it would be justifiable to make one person carry the responsibility in connection with the operation of this business, it has been usual in other companies to employ competent engineers, or consulting engineers,

or firms for the purpose of getting their ideas as to methods of operation and the policy to be established in conducting the business; I hardly think it would be wise for this company to attempt to operate as an isolated property without obtaining consultation from those who are in touch with other properties, other conditions, and various methods of operation. \* \* \* If I were the owner and operator of this gas plant I would be tickled to death to get the services we have gotten and are getting from Doherty & Company, and would make an arrangement with them to pay Mr. Doherty \$3,000 a year, and Mr. Frueauff, \$2,500 a year, merely for the privilege of having the benefits we now derive from their connection with this company. I feel it would be a proper expenditure of the money and a proper charge to deduct from the operating expenses here and paid by the gas consumers of this community. \* \* \* I feel that the services of Mr. Frueauff's brother are of sufficient value to this company to justify the expenditure of \$600 a year, and have used and felt the need of his services in the operation of this plant. He has transacted business in this community in connection with the dollar gas case, has worked on the record some, and outside of that he has rendered services locally in connection with the \$500,000 three-year notes and he and Mr. Strode consulted occasionally; I don't think Mr. Strode could have handled all that transaction perhaps, but Mr. Frueauff with his New York City connections was able to handle a good many details that Mr. Strode could have handled by going down there, not with the financial end in New York, but the local end. \* \* \* Doherty & Company negotiated the transaction for the \$500,000 notes, which were sold, I think in the Fall of 1911, to take up some of our bonds, they have also taken part by raising funds or financing this company within the past five years, by taking up the one year notes issued in 1907, when they became due and carried them themselves for some time; these notes I think were for \$100,000 and were held locally to a certain extent by banks and individuals. \* \* \*

Those notes were taken up by Doherty & Company the year after they were issued, they were one-year notes and were taken up when they were matured, in taking up the notes the holders drew on Doherty & Company with the notes attached and Doherty & Company provided the funds to take care of them.

"As to any other transaction since Doherty & Company have been connected with this Lincoln Company, in addition to the \$500,000 note transaction, I think they carried the bond in this dollar gas suit put up by the National Surety Company; in connection with this case the company, by a bond to reimburse the consumers for this extra 20 cents in case the Court should hold against the company, in giving that bond the company had to indemnify the surety company; in addition to this \$100,000 note transaction and the \$500,000 note transaction and this indemnity bond furnished the Doherty & Company, since they have been connected with this property, have at times paid bond interest and we have reimbursed them for it later. . . .

"Returning to the other subject for a moment I am able to name another transaction since Doherty & Company became connected with the company in which they financed the Lincoln Company, when we bought the five hundred cubic foot holder, Doherty & Company was able to get the Western Gas & Construction Company to take notes that they would not have taken had we been standing on our own ground; I think we gave them notes for one of our water gas machines and that was absolutely due to the connection Doherty & Company had with the property. They have always been able to establish a credit for this company with concerns that might be caused to bear down a little heavily to make us pay up; I remember when I was first manager, we had a big account with the Maryland Motor Company that we couldn't pay, and Doherty & Company were finally able to get the Maryland Company to take our notes; they were also able to get the Detroit Stove Works to take notes for amounts we owed and couldn't pay them.

and they wouldn't have taken them if we had attempted to negotiate that sort of a transaction ourselves; I think they also got the Denver Gas & Electric Company to take notes for amounts we owed for coke we got, and I am sure they wouldn't have taken them had we done it ourselves. \* \* \*

"C. H. Dockery & Company are the people who sell us meters, I imagine that was an additional discount we received from them that was credited on their New York books, the meter transaction was conducted through the New York office in the first instance, but the New York office did not pay for the meters; this is their connection with that transaction, in their purchase of meters for all of their companies they are able to get a lower price on meters" (Transcript, pp. 603, 604, 619-622).

So it appears in a general way that the Lincoln Company profited by its connection with Henry L. Doherty & Company in the following respects:

- (1) General engineering advice and supervision on construction and operation.
- (2) Financing.
- (3) Extending the company's credit.
- (4) Securing discounts in the purchase of supplies.

The value of these services as compared with the amount of the executive salaries paid has been amply demonstrated by the testimony of Mr. B. C. Adams himself, who is concededly in a position to know the facts.

The Master makes reference to a comparison of the company's executive expenses with those of other utilities. The City brought up the subject of what was shown by the returns in the Massachusetts companies as regards executive salaries. Eventually an exhibit was introduced showing what the comparison was. The Lincoln Company's expenditures for "salaries, office, distribution and general expenses" showed an average of

26.02 cents per thousand cubic feet of gas sold. Referring to Exhibit "425-V" (Transcript, p. 1392), the Court will note the expenditures of the Massachusetts companies for "salaries, office, distribution and general expenses" in cents per thousand cubic feet of gas sold.

For the year 1911:

Boston, .12367; Brockton, .25321; Cambridge, .13361; Charleston, .11529; East Boston, .20962; Fall River, .16418; Haverhill, .48407; Lawrence, .12062; Lowell, .18419; Lynn, .17054; Malden, .21094; New Bedford, .18362; Newton, .22593; Pittsfield, .24704; Salem, .19547; Springfield, .18330; Suburban, .24633; Taunton, .14671; Worcester, .07172.

For the year 1912:

Boston, .11232; Brockton, .25800; Cambridge, .12730; Charleston, .10391; East Boston, .19153; Fall River, .13380; Fitchburg, .35039; Haverhill, .30054; Lawrence, .12639; Lowell, .20312; Lynn, .10139; Malden, .15879; New Bedford, .18569; Newton, .22812; Pittsfield, .21865; Salem, .19852; Springfield, .19927; Suburban, .24199; Taunton, .14485; Worcester, .08596 (Exhibit "425-V").

In view of the above we inquire the basis of the Master's comments that "the executive salaries, in comparison with those paid by other utilities producing and selling about the same amount of gas, are apparently excessive."

Another point raised with a great deal of persistence by the City was the fact that the account of salaries of the Lincoln Company per cu. ft. of gas sold was increasing during recent years, even though the gross sales of gas were increasing; whereas they contended the proportion of salaries should have decreased as the volume of gas sold increased. But we can very shortly point out where the increase occurred and show that it was

*not* in the salaries paid members of the firm of Henry L. Doherty & Company. The table above given shows that in 1904 the manager was paid a salary of \$100 a month, which is obviously small. This was gradually increased until in 1912 he was paid \$300 a month. In other words, in eight years his salary was tripled. In 1904 the secretary and treasurer's salary was \$100 a month, whereas in 1912 his salary was \$125 a month, an increase of 25 per cent.

In view of these facts we submit that the Master's implication that the members of the firm of Henry L. Doherty & Company were receiving salaries in excess of services rendered, is entirely without foundation in the testimony, and the Master's conclusions that the company dispersed money for operating expenses recklessly or improvidently during the year 1912 was entirely erroneous.

There is another matter which the Master seems to have completely overlooked. If the salary of Mr. Doherty (\$3,000) and the retainer of Mr. C. A. Frueauff (\$600) is to be disallowed, only such proportion should be excluded as the ratio of the company's gas business bears to its entire business. Mr. Lea estimates that the gas business is 80 per cent. of the entire business. The Master's figure is 73 per cent. So that instead of disallowing \$3,600 from the salaries account, he can not possibly disallow more than \$2,280, if Mr. Lea's percentages are correct, or \$2,628, if the Master's percentages are correct. This is a small matter, but, we submit, the Master's report is so full of inaccuracies that we deem it essential to correct them as we proceed in our discussion of the report.

*Depreciation.*

The Master allows the sum of \$12,000 to be set aside as a depreciation reserve for the year 1912. Why he selects that particular figure, we are unable to state. He does not tell us. He merely discusses, in the broadest terms, the general subject of repairs and renewals and rejects Mr. A. D. Adams' method of computing the reserve to be set aside for repairs, renewals and depreciation based on the plant output. Mr. A. D. Adams would allow 9c. per M. cubic feet of gas to cover all the items of repairs, renewals and depreciations. This method the Master properly rejects. He says:

"There is, so far as I can see, no close or constant relation between plant depreciation and plant product, and any estimate based on the assumption that there is, would in my judgment be more or less arbitrary" (Transcript, p. 50).

The only proper method of determining the annuity to be set aside for depreciation is the method adopted by Mr. Lea; that is, by estimating both the age and the life of the property, and having decided its Reproduction Cost, to set aside such a sum annually, as would, at the end of the life of the equipment, reproduce the original cost. The "straight line" basis of figuring depreciation (which the Master says he has adopted), is the simplest method of figuring depreciation and is applied by dividing the number of years of the estimated life of each item of equipment into the Reproduction Cost. However, it is obvious that this method cannot be applied unless one determines the estimated life of the equipment. The Master's report is absolutely silent as to what life he has attributed to this property.

The Supreme Court of the United States, in reversing the former decision in this action and ordering a reference to a skilled Master, said (364-5):

*"There should be a full report upon past depreciation, past expense for reconstruction or replacement, and past operating expenses, including current repairs. We should be advised as to the gross receipts for recent years, and just how these receipts have been expended. Then the amount to be set aside for future depreciation will depend upon the character and probable life of the property and the method adopted in the past to preserve the property. It can be readily seen that the amount to be annually set aside may be such as to forbid rate reductions because of the requirement of such a fund. The matter is one first for a skilled Master who should make a full report upon the value of the property, the receipts and the expenses of operation and the sums paid out on reconstruction and replacements, and in dividends in recent years."*

Can the Master's report be said to comply to these instructions? He has given no "probable life" at all. He has not even indicated how he arrives at his depreciation reserve of \$12,000. As for money expended for reconstruction and replacements, including current repairs, the Master frankly admits that he is unable to make the calculation, although all the company's records in recent years were in evidence. The Master has apparently disregarded the Supreme Court's instructions and for such reason his report is valueless.

By analyzing the ratio between the Master's Reproduction Cost and his Present Value, we can determine that he must have estimated that the property had a present per cent. condition of 88.67 per cent., whereas Mr. Lea estimated 78.54 percentage and Mr. Adams 74.97 per cent. In other words, the Master's present per cent. condition is more than 10 points higher than the highest estimate in the record. Stated in another way, the Master must have estimated the composite age of the property at 5.96 years, whereas Mr. A. D. Adams' estimate was 12.4 years and Mr. Lea's, 10.02 years. This

calculation shows that the Master must have assumed that the property as a whole, had a composite age of 4.07 years lower than the lowest estimate in the record.

This again raises the question as to whether the Master's findings were based on the evidence.

### **Apportionment of Operating Expenses.**

The matter of apportioning operating expenses is purely a question of sound judgment.

The Master's basis of apportionment is the relative number of consumers in each department. This ratio, however, varies each year, and it is not, we submit, consistent with sound judgment to apportion the operating expenses of any particular year on the basis of the consumers for that year. If apportionment is to be made on the basis of consumers, a fair average for a number of years should be the measure of such apportionment. For this purpose the Company introduced in evidence an exhibit showing the proportion of consumers during a period of ten years prior to 1912. This exhibit ("101") (Transcript, p. 1849) is as follows:

Year Ending	No. Gas Consumers	No. of Elec- tric Consumers	% Gas	% Electric
1902	3224	771	81	19
1903	3859	834	82	18
1904	4658	1006	82	18
1905	5320	1214	81	19
1906	5882	1486	80	20
1907	6244	1640	79	21
1908	6630	1855	78	22
1909	7047	2228	76	24
1910	7587	2122	78	22
1911	7896	2389	77	23
1912	7816	2934	73	27

The average per cent. of apportionment for this ten years is approximately 79 per cent. for the gas department and 21 per cent. for the electric department. To

expedite calculations, the Company uses the figures 80 per cent. and 20 per cent. This apportionment is essentially fair. The Master's method of picking out the per cent. for the particular years is not reasonable, and would lead to confusion in calculating and comparing the expenses for the various years. A reasonably constant percentage of apportionment is the customary and more accurate method of calculating results in this matter. Even if, therefore, the Master objects to 80 per cent. and 20 per cent, as a division of customers, he certainly is not justified in using a different apportionment than 79 per cent. and 21 per cent.

### **1912 Earnings.**

In this subdivision of the report, headed "Revision," the Master summarizes his findings on valuation, stating the total to be \$676,565. We have heretofore set forth our reasons for claiming that these findings on valuation are erroneous, and we will not restate those reasons except to repeat that said total, as shown by the evidence, should be \$1,090,913.

The Master then summarizes his findings as to earnings and operating expenses. The gross earnings for the year 1912 at \$1.20 per M. cu. ft. were \$273,175.93. This figure is conceded by all parties. From these gross earnings the Master would deduct \$182,015 as operating expenses. Mr. Lea's figure is \$197,277.13. From Mr. Lea's figure for operating expenses the Master has deducted:

(1) Difference between \$19,692, amount expended for new business, and \$12,000, allowed by Master for such expenditures .....	\$7,692.00
(2) Difference between \$20,865, amount of estimated depreciation by Lea, and \$12,000, allowed by Master for same .....	8,865.00
(3) Salary of Henry L. Doherty and retainer of C. A. Frueauff (full amount) .....	3,600.00
(4) Estimated difference necessitated by Master's reappportionment of operating expenses.....	3,300.00
Total.....	\$23,457.00

(Transcript, p. 52.)

This sum the Master cuts off the Company's operating charges for the year 1912. The propriety of so doing we have heretofore considered. After calculating the occupation tax at \$8.195, the Master arrives at a net income of \$91,165, as against Mr. Lea's figure of \$75,898.80. On the basis of the \$1.00 rate the gross income would be \$227,297. Using the Master's operating expenses of \$180,639 and net income of \$46,658, he arrives at a figure of approximately 6.9 per cent. of his own total valuation.

If we take the Master's figure of \$46,658 for net earnings and calculate the percentage by using Mr. Lea's total valuation, the result shows the net earnings for 1912 to be 4.2 per cent.

If we take the gross revenue at the \$1.00 rate (\$227,297) and deduct the operating expenses as calculated by Mr. Lea—\$197,277.13 (not including the occupation tax)—we show the net earnings to be \$30,020, which, with the Master's total valuation of \$676,565, would indicate a return of 4.4 per cent; and if we also include the occupation tax the figure would be 3.2 per cent.

In other words, the Master arrives at his figure of 6.9 per cent. return only by greatly reducing the estimated value of the Company's property and by simultaneously reducing the Company's operating charges. Thus the Master's figures cannot be sustained if either of his estimates are erroneous, and we submit they both are.

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## VOL. III.

## SUPREME COURT OF THE UNITED STATES.

LINCOLN GAS & ELECTRIC LIGHT COM-  
PANY,

Appellant,

*v.*

THE CITY OF LINCOLN, *et al*,

Appellees.

October Term,  
1917.

No. 300.

**Discussion of the Qualifications of the Witnesses.**

We have heretofore mentioned that the Master in no place in his report gives the Court his views as to the weight which he attaches to the testimony of the various witnesses, expert and otherwise, who were examined before him.

In fact, he expressly states: "To give the names of witnesses together with what I might conceive to be a fair condensation of their testimony upon any controverted point would, as I view it, be altogether valueless." (Transcript, p. 36.) When the fact is considered, however, that the testimony of one of the experts in the case, to wit, Mr. Alton D. Adams, the City's witness, was continually assailed, and his right to speak as an expert denied, we submit it is, to say the least, quite unsatisfactory that the Master does not intimate, even to the slightest degree, what were his conclusions with regard to the weight which should be attached to the testimony of that particular witness.

The only comment on witnesses which the Master makes throughout his report are as follows:

(a) Of Mr. Broadnax, the Company's witness who made the inventory, he says:

"The property was inventoried by Mr. Broadnax, an employe of the Company, and a gas engineer of long experience. The work seems to have been done with unusual thoroughness." (Transcript, p. 37.)

(b) Of the local witnesses on real estate, he says:

"The local witnesses were all men of fair intelligence, evident candor and qualified by observation and experience to give evidence entitled to serious consideration." (Transcript, p. 38.)

Here we may again remark that the witnesses for the Company valued certain of the real estate at approximately \$12,000, whereas, the witnesses for the City valued the same real estate at \$2,625, which the Master states is "obviously too low." (Transcript, p. 38.) And, yet, even though it is apparent to the Master that the estimate of the City's witnesses on real estate was obviously too low, he still thinks they were all men of fair intelligence, evident candor and qualified by observation and experience to give evidence entitled to serious consideration.

(c) In his finding on the value of Works Equipment, he states that the evidence of values which came principally from the witnesses Lea and Adams, "clashes irreconcilably at almost every point." (Transcript, p. 40.)

(d) He characterizes Mr. B. C. Adams, the Company's Manager, as "an exceptionally efficient and capable man, having a thorough technical and general knowledge of the gas business," (Transcript, p. 51.)

Other than as above quoted, the Master gives not the slightest intimation of what value he attaches to

the testimony of the various witnesses, but merely catalogically quotes the estimates which each gives.

In view of the failure of the Master in respect of these matters, we deem it our duty to place before this Court a summarization of the qualifications of the various witnesses, and such of their testimony as tends to bring light upon their standing as experts in respect of the matters upon which they were called to testify.

(a) *Alton D. Adams.*

The City placed upon the stand (and in so doing vouched for the correctness of his testimony) Mr. Alton D. Adams as an expert to appraise the value of the gas property owned by the company, and to calculate its proper operating expenses and revenue. Upon the determination of these questions is dependent the decision as to whether or not the City by its ordinance is confiscating the property of the company. The outcome of the suit is of vital importance to the company.

What are Mr. A. D. Adams' qualifications to testify as an expert in respect of value and operation of gas property? On his own admission the following is true:

(1) He has never built or assisted in any way in building a gas plant or distribution system.

(2) He has never constructed or assisted in any way in the construction of any building of any kind whatsoever.

(3) He has never been engaged in the manufacture or sale of gas in any capacity whatsoever.

(4) He has never managed a gas property or been connected or associated with any company so doing.

(5) He has never manufactured, bought or sold gas equipment, mains, services, meters or appliances, or any

of them, or been connected or associated with any firm or corporation so doing.

(6) He has never had one day's practical experience in the art or trade of manufacturing or selling gas or in the business of manufacturing or selling equipment or appliances useful in the gas business (Transcript, pp. 1053, 1264).

Bouvier, in his Law Dictionary, says that the word expert is derived from the Latin word "experti," and means "skilled by experience." The definition of the term requires knowledge derived out of experience. If the witness who presents himself has had no experience, or has not been instructed out of experience, he is not an expert, and if he testifies it will be for some other reason and in some other capacity.

In *Soquet v. State* (Wis.), 72 Wis., 659, it was held that on a trial for murder by poisoning, a medical witness is not qualified to give an opinion that the symptoms of the last sickness of the deceased indicated poison by arsenic, when he had never seen a case or had any experience whatever in cases of arsenical poisoning, and all that he knows on the subject is derived from medical or scientific books and medical instructors.

In *Luning v. State* (Wis.), 2 Pin., 284, 288, the Court said:

"it is manifest that the purpose of the question and proposition was to extract from the witness evidence of facts derived from his 'scientific,' not his personal knowledge; or, in other words, that he was to swear to facts, the existence of which he only knew from his reading; and this, upon no principle of evidence, could be admitted."

In addition to the above authority we have a direct ruling of a Federal Court on the competency of so-

called experts who have no practical experience. The case we refer to is the Des Moines Gas case, and the witness was Prof. E. W. Bemis. The record in this case shows that Prof. E. W. Bemis was a witness for the City of Lincoln upon the former hearing, and his qualifications are shown in the printed record. Prof. Bemis testified that he was one of a committee of five of the National Civic Federation, which made a special study of private and municipal gas works in this country and in Great Britain, and that he wrote a series of reports for that committee which were published; that he did a large amount of work in New York, Boston, Syracuse, Buffalo, Saginaw, Cedar Rapids, Montreal and other cities, and that he had charge of the water works for the City of Cleveland some seven years; but that he had not been connected with gas works in a practical way. The evidence shows that Prof. E. W. Bemis was a witness in the Des Moines Gas case, and that Mr. A. D. Adams was present there, but did not participate as a witness; that Bemis was put forward as possessing superior qualifications. The Special Master in the Des Moines case disposed of Prof. Bemis' testimony as follows:

"There are very few men, who, through investigation, have gained more information in relation to the operation of public utilities of the character in question, than Prof. E. W. Bemis, and he is an experienced man in water works. He is undoubtedly a very valuable man to assist in a case like the one at bar, but he is not a qualified expert upon values.

"There is a very great difference between information gained by investigation and from statistics, and that gained by actual experience in the business.

"It is evident that for some time his efforts have been directed in the work of securing lower rates for the public, who are patrons of public utilities, and his efforts in that direction are laudable, and in

this work he has gained a large amount of general information, but any man in so doing will have his eyes open for everything bettering his side of the case. Much of his evidence was purely argumentative and incompetent, unless made so by the extensive cross-examination by complainants.

"He has gone quite extensively into statistics and in a very intelligent and comprehensive manner, but, granting that such evidence is competent, it became evident to me that they are not reliable when accuracy becomes necessary. They may very properly be consulted when we are simply seeking approximate results, but not when accuracy is required.

"Similarity of conditions must exist, and similar results are required. It is very doubtful if the same results can be produced each day with the same plant at the same cost. But granting that it can be done, then we must compare the conditions of the plant from which statistics are derived, with the plant in question before they can be regarded as reliable and accurate. The matters involved in the present case demand as great accuracy as possible, and to get it, we must look to the conditions involved in the plant in question, rather than resort to statistics, which involve conditions of which we have but little, if any, knowledge, without opportunity to investigate beyond what little is given in that various tables submitted."

What does Mr. A. D. Adams say of himself with regard to his own qualifications in posing as a gas expert?

"I have resorted extensively to these returns (of Massachusetts companies) in the office of the Massachusetts Gas Commissioners to aid me in forming an opinion, among other things, as to the amount of cost, to the Lincoln Company, for the various salaries, office, and distribution and general expense of the Lincoln Company, apart from its cost of materials and labor involved in making gas, and apart from its taxes. I have also resorted to these Massachusetts returns very considerably for many

years, as a basis of forming an opinion on the subject of necessary amounts for repairs, renewals and depreciation, so that my opinion on both of these branches runs back largely to the facts disclosed by the returns in the hands of the Massachusetts Gas Commissioners" (Transcript, p. 992).

The witness was asked:

"Q. What experience, if any, did you ever have in the manufacture of gas such as this company furnished here? A. Why, I have watched and analyzed" (Transcript, p. 1264).

And again:

"Q. Did you ever have any actual experience on a job of putting up a building? A. I say I did; yes, a great many.

"Q. I don't mean putting them on paper; I mean helping put them up. A. No, I never helped put up a building" (Transcript, p. 1264).

He testified, further, that he prepared some general plans once for a gas plant at Ypsilanti, but that the plant was never built, and the evidence in the case fairly discloses that it was not the purpose of Ypsilanti to build a gas plant, but was part of a plan to acquire the plant in service there, and the City needed a showing of low cost as a means of depressing the values of the plant of the company that was being forced to sell (Transcript, pp. 1053, 1059).

Counsel for the Lincoln Company pressed the inquiry as to the actual experience of this witness, until the Master stated in the record the following:

"It seems to me that this has gone far enough to show that Mr. Adams has had no practical experience in the sense you use the term. You and he don't agree on the definition, but the evidence is very plain" (Transcript, p. 1053).

On his own admission, therefore, Mr. A. D. Adams is

not a practical gas engineer of experience, but merely a statistician in respect of the returns filed by Massachusetts gas companies with the Commission of that commonwealth. As such a statistician he bases his sole right to be heard as a gas expert in this case.

This brings up the immediate question of what value the Massachusetts gas companies' returns have in aiding a student of them to qualify as an expert in valuing and operating gas properties.

In the first place, the testimony and the exhibited copies of the returns to the Massachusetts Commission show that these returns in no way disclose information concerning the cost of any particular item of gas equipment; they do not show the cost of water gas sets, coal gas equipment, gas holders or other items of gas appliances. So that a skilled statistician of these returns would be just as much in the dark as to these items or units of cost as if he had never seen a Massachusetts return.

But Mr. A. D. Adams gives us a better insight as to the value of these Massachusetts returns in equipping one who has studied them to testify as an expert on gas properties. Mr. A. D. Adams first admits that the returns are never checked by the Commission to see if the returns have been properly, accurately or honestly made, but these matters are left largely to the discretion of the particular companies. He testified:

"Q. If you think they haven't time down in Massachusetts to see that those companies make proper reports as to the money expended for repairs and renewals, or expended for expense, do you think they have time to check over and determine whether the items expended for the operation of the plant are properly entered and applied under the classification they assume to apply them under? A. Not generally by any means. . . .

"Q. It is left very largely to the company to

make up its own reports about in its own way, excepting they must fill out the standard form? A. The Company, as a matter of fact, exercises a good deal of discretion in making out its report; there is no doubt about that" (Transcript, p. 1265).

But later on in the hearing Mr. A. D. Adams went further into this matter. Because the Massachusetts returns did not bear out certain conclusions which Mr. A. D. Adams deducted as a result of his study of them, he turned on the reports and attacked them very frankly, asserting that they were falsely and fraudulently prepared by the companies in a dishonest attempt to cover up their earnings. And he further states that this corrupt practice is known to and acquiesced in by the Honorable Commission of the Commonwealth of Massachusetts. His testimony is as follows:

"Q. You have indicated that you thought the commission knew of this practice that you referred to as existing in Massachusetts? A. I know they know; it is brought up repeatedly in the hearings there, there is no 'think' about it, it is just as well known as any practice could be and the commission can't help it.

"Q. They can't help it? A. No, sir.

"Q. They can not change or direct that item to be entered as it should be entered in the returns to the Commission? A. The trouble would be that it would require an army of accountants and engineers to chase up the fifty companies to see what they entered as a repair or as a renewal was in fact an extension; it is the practical enforcement of a regulation of that kind, on a matter involving as much judgment, engineering and skilled judgment as that does, that makes it impossible and impracticable for the Commission to enforce a rule on that matter (Transcript, p. 1265).

"Q. Now, if you think they haven't the time down there in Massachusetts to see that those companies make a proper report as to whether the money expended is for repairs and renewals or ex-

pended for extensions, do you think they have sufficient time to check over and determine whether the items expended for operation of the plant are properly entered and applied? A. \* \* \* Not generally, by any means. \* \* \* (Transcript, pp. 1265, 1288.)

"Q. Now you referred to the matter of repairs and renewals in Massachusetts and said that some of the companies in Massachusetts were in the habit of covering up their earnings by entering as renewals or repairs what were in fact extensions, I think you said? A. Well, that may be a fair summary of what I said.

"Q. Now, do you think the Commission in Massachusetts knows that this is being done? A. "Oh, it is notorious" (Transcript, p. 1265).

Here we have from the witness's own lips a true estimate of the value of the Massachusetts returns, which leaves the witness in this position: He has been a statistician for many years of inadequate and corrupt returns of some gas companies in the State of Massachusetts. It is on this basis that his testimony is offered in a suit to determine whether the City of Lincoln is confiscating the property of Lincoln Gas & Electric Light Company. We confess in all seriousness that the introduction of the testimony of such a man in the capacity of an expert in a suit of such vital importance is a shock to our sense of fairness and justice, and we claimed repeatedly throughout the hearings that the testimony of Mr. A. D. Adams was inadmissible because he was not qualified to speak as an expert.

But we have more serious charges to make against Mr. A. D. Adams and his testimony in this case. We have spoken heretofore only of his qualifications as an expert, and the question of the admissibility of his testimony as a matter of law. But we must now speak of the weight to be attached to his testimony as an expert in

this suit, and point out his attitude and bearing throughout the hearing. We maintain that the bearing of the witness before the Master was such as to warrant the Court in completely disregarding his testimony as untrustworthy and not entitled to consideration.

The evidence shows (Exhibit "414") (Transcript, p. 2036) that on December 25, 1912, Mr. A. D. Adams gave the city attorney the following opinion:

"Lincoln, Neb., Dec. 25, 1912.

"Fred C. Foster, City Atty.,

"Lincoln, Neb.

"Dear Sir:

"The following complies with your request for a statement as to the profit of the Gas Company:

"If the gas sold in Lincoln during the year of 1907 had been at the net rate of \$1.00 per thousand feet, the Gas Company would have earned more than 9 per cent. on the value of its plant above necessary operating expenses, including depreciation.

"Since 1907 the gas output has increased constantly, being 26 per cent. greater in 1911 than in 1907, and this implies still larger profits.

"Yours respectfully,

"ALTON D. ADAMS."

This opinion was given to advise the City of Lincoln against a settlement of this controversy with the Company. Mr. Adams testified:

"Q. Did you make any estimate before Mr. Lea testified and furnished his report? A. Why, no, sir; no direct estimate of my own, I looked at the estimates your men made in the case in the United States court and did a little thinking about that, but I didn't make an estimate of my own" (Transcript, p. 1280).

Mr. Lea testified in March, 1913, about three months after the report had been given by Mr. A. D. Adams in

the letter above quoted. Three months after he had written that letter he had yet made no direct estimate of his own. It is clear, therefore, that Mr. A. D. Adams had a motive for testifying so as to sustain his opinion irrespective of the facts of the case and irrespective of what his honest belief may have been concerning those facts. The record discloses what effect this circumstance had upon Mr. A. D. Adams' bearing during all the hearings before the Master. He was straining every nerve and using every means to sustain his opinion. The result was seen in the early stages of the hearing before the Master, when it was requested by the City that Mr. A. D. Adams be permitted to cross examine Mr. Lea. This was consented to at the time by the company, and Mr. A. D. Adams thereupon entered upon the duties of an advocate in addition to those of an expert witness. He claimed to be a graduate of the Harvard Law school, so that perhaps this role was not unfamiliar to him. If the matter had stopped with the cross examination of Mr. Lea we would not deem it of sufficient importance to direct the Court's attention to it; but the witness continued in the service of an advocate throughout all the hearings and persistently cross examined every witness presented by the Company. His cross examination shows that he was not seeking in a broad way to lay before the Court all the facts in a calm, dispassionate manner, but he proceeded to exhibit such signs of vindictiveness toward the Company's witnesses as to call for comment from the Master. The Master interrupted the cross examination, and said:

"Mr. Adams, I think you inject into your questions comments that are unnecessarily irritating, an irritating vein of sarcasm; I don't want to criticise you but I can see the effect on Mr. Lea and I think we would be better off if you would eliminate that, and if you do that I think Mr. Lea will endeavor to

give you direct and responsive answers to your questions."

Mr. A. D. Adams' cross examination of Mr. Schmidt, the young man from the water department of the City, who kept the records showing the cost of laying the water mains, is full of cunning, and his cross examination of Perry Hahn is an example of the effort of an unscrupulous advocate endeavoring to minimize evidence of important facts.

The courts have quite generally condemned the practice of counsel furnishing through their own evidence the testimony upon which the case is to be tried. Lord Chief Justice Campbell once said in an early case:

"It is, in my opinion, indispensable to the administration of justice that a witness should not be turned into an advocate nor an advocate into a witness."

In *Wilkinson v. People* (Ill.), 1226 Ill., 135, the court said:

"In the English courts, in several cases, it was held that an attorney can not appear in the same cause in the double capacity of witness and advocate, and it has been so ruled in Pennsylvania and in Iowa, on the circuit. In Indiana it was held by Judge McDonald, now United States district judge, that an attorney in a cause could not be permitted to testify to the general merits of the case. In *Frear v. Drinker*, 8 Penn. 521, the court said that it was a highly indecent practice for an attorney to cross-examine witnesses, address the jury, and give evidence himself to contradict the witness; that it was a practice to be discountenanced by court and counsel; that it was sometimes indispensable that an attorney, to prevent injustice, should give evidence for his client. It, however, leads to abuse, but at the same time, there is no law to prevent it. All the court can do is to discountenance the prac-

tice, and, when the evidence is indispensable, to recommend to the counsel to withdraw from the cause. The subject has engaged the attention of other courts and of this court, and, however indecent it may be in practice for an attorney, retained in a case and managing it, to be a witness, also, we can not say he is incompetent, and must leave him to his own convictions of what is right and proper under such circumstances."

Mr. A. D. Adams testified as follows:

"Q. Of course, you feel that the City is your client in this matter? A. I certainly do.

"Q. That you are in the service of the City and you represent the City in this controversy and that you are giving the City the best service you have? A. Yes sir.

"Q. And in its interest? A. Yes, sir.

"Q. But you do not feel free to volunteer information or opinions or judgments to this company for its benefit in this controversy? A. I do not think I am called upon to do that; no, sir.

"Q. Especially in view of the fact that you have participated in pursuing a vigorous cross-examination of witnesses you would hardly be expected to turn around the next day and render assistance, even though you felt that the facts, if fully disclosed, would be to the benefit of the Company? A. Well, I haven't considered any facts that I thought were necessary to the Company, if that is what you are driving at." (Transcript, p. 1266.)

The above testimony not only bears on the weight to be given to the witness' testimony, but it bears on the question settled by the rules of court that an expert witness must retain a position in the case to speak fully and freely of opinions which he is qualified to give. As said in one of the cases, "Expert testimony should be the colorless light of science brought to bear upon any case where it is summoned. It should be impartial, unprejudiced. There should be no half-truths uttered

and supression of the whole truth is in the nature of false testimony.'

That the court may see clearly that the testimony above quoted is a correct expression of the conception that Mr. A. D. Adams had of his connection with this case we will cite a few examples of his testimony to illustrate the point that the witness was at all times biased in extreme; that he was controlled by no principles of fairness whatsoever in estimating value, and that he deliberately sought to utter half-truths and to suppress testimony regarding the whole truth of matters under consideration.

(1) Mr. A. D. Adams estimated the cost of laying 4 and 6-inch water mains in Lincoln at 12.07c per foot. It appears that the water department of the city laid 20,376 feet of such mains during the year 1913 (Exhibit "405"), (Transcript, pp. 2032-2036), in the very streets and under the very same conditions as the Gas Company had laid its own mains. The City's actual cost of laying said water mains was 25.74c per foot, or more than double the estimate of Mr. A. D. Adams. Similarly the total water pipe laid by the City, as shown by its record. (Exhibits "402-405," inclusive), (Transcript, pp. 2032-2036), for the years 1910 to 1913; inclusive, was 85,610.8 feet, at a total cost for labor, trenching, laying and cartage of \$27,790.22, or an average cost per foot of 32.46c. For the same pipe for the Company's gas mains, applying the unit cost applied by Mr. A. D. Adams for the particular sizes of mains making up the total of 85,610.8 feet, Mr. A. D. Adams would estimate the cost for trenching, laying and carting at \$13,459.85, or below the actual cost paid by the City in the amount of \$14,330.37. The average price per foot for labor for the pipe applied by Mr. A. D. Adams to the Gas Company was 15.72c,

as against the City's cost of 32.46c. It would be necessary to add to Mr. A. D. Adams' estimated cost 106.5 per cent to bring it up to the actual cost incurred by the City. Mr. A. D. Adams cut the value of the Company's property in two and returned a valuation of about one-half the actual value of the Company's property by the same method employed by him in reducing the estimated value of the distribution system to one-half of its actual value.

Now it appears that when the Company produced the cost record of the City for laying water mains and introduced them in evidence it developed in the examination of Mr. Schmidt (Transcript, p. 827), the young man from the water department, that Mr. A. D. Adams had been furnished a copy of this cost record about *one year* before he testified; so that at the time Mr. A. D. Adams took the stand and presented his estimated valuation of the Company's property and introduced in evidence his tabulations and exhibits on the cost of gas mains, he had had in his possession for one year the data from the water department showing the *actual cost* for laying mains to be over twice the amount of his own estimate. Instead of alluding in some way to this data of the water department and explaining why he had not followed it, he ignored it completely in his testimony and failed to mention that he even knew of its existence. But, on the contrary, he produced in support of his estimated cost for mains certain contracts for two concrete reservoirs and a contract for water mains in the town of De Witt. But he maintained a discreet silence as to the fact that he had in his possession the labor costs incurred by the City of Lincoln in laying its water mains on the opposite side of the street from the company's gas mains. If this is not suppressing evidence we confess we do not know the meaning of the phrase. But furthermore, after the

company had procured and introduced these City records in evidence and had brought out the fact that copies of them had been in Mr. A. D. Adams' possession during his testimony, he admitted the fact, but pleaded that he had not had time to analyze the cost and prepare an exhibit (Transcript, p. 1088). However, if the Court will examine Exhibits "402-5" (Transcript, p. 2032 *et seq.*), inclusive, which are copies of the summary in the record of the water department, it will appear at once that a correct analysis can be made of the labor cost as carried separately and the unit cost *in five minutes* for each year. And yet Mr. A. D. Adams had this data in his possession for one year before he testified, and still had not time to make such an analysis. This fact alone stands as an impeachment of his testimony, and when we also consider the fact that this data from the water department showed the exact cost of laying mains under the precise conditions in which the gas mains are laid and that such cost is more than twice as large as Mr. A. D. Adams' estimated figure, we must conclude that there is no moral responsibility behind his estimates.

(2) Mr. A. D. Adams produced what he deliberately labeled a statement of the labor cost for trenching in sewer construction "as compiled by Adna Dobson, City Engineer" (Transcript, p. 1201). This exhibit upon cross examination was shown to be without any value and misleading, if not a deliberate attempt to deceive. The City, during the period covered by the exhibit, did all of this work under contract for the completed job. The contracts were let by the City for the construction of the sewers complete and there was nothing in the contract to tell how much was paid by the contractor for labor or how much for materials. The witness when confronted with this situation said that the labor cost

in his exhibit was his estimate and that he used the contract showing the total cost for labor and materials as a guide to him in estimating the cost of the labor (Transcript, p. 1223). He testified that he did not inquire of the contractors who did the work to learn of their experience or concerning what proportion of the total cost was incurred for labor in constructing the sewers. The exhibition of those estimated costs as coming from the city engineer's office under the label of labor costs for sewer construction, as shown by the records in the city engineer's office, was misleading, until there was written all over those exhibits by the testimony, the fact that they simply represented the estimates of Mr. A. D. Adams for labor costs based upon contracts for completed work in which the labor costs were not segregated. The exhibits were absolutely without value. The witness could have estimated the labor costs on the sewers with or without those contracts before him equally well. His purpose was to give weight to his estimate by labelling them as something from the City Engineer's office.

(3) As to the value of real estate, on which a gas plant is situated, Mr. A. D. Adams states that he takes  $2\frac{1}{2}$  cents per square foot as a true measure of value irrespective of the market value. His testimony is as follows:

"I may have said that, taking cities of somewhere near this size, that  $2\frac{1}{2}$  c. a square foot is more than has been paid in recent years for land occupied by gas plants. The answer previously given by me being read—I testified to that. I know about  $2\frac{1}{2}$  cents generally is the price." (Transcript, p. 1077.)

The witness stated that the value of real estate for gas plant purposes had been the subject of long observation and study on his part and particularly in the Commonwealth of Massachusetts; that he found from such observation and study that  $2\frac{1}{2}$  cents per square

foot was a fair price for such real estate; his attention was directed to his testimony in the Haverhill case on the same subject, in which, basing his knowledge upon like observation and study, the witness stated that he found 15 cents a square foot to be the fair price (Transcript, pp. 1078, 1080); that the value of the land on which the Haverhill plant was located was from \$1.00 to \$1.50 a square foot—that is the market value, and notwithstanding this fact he concluded to allow the Company 15 cents a square foot as the value of real estate, and undertook to justify a valuation of 15 cents a square foot as against a market value of from \$1.00 to \$1.50 a square foot (Transcript, p. 1078).

(4) It developed in the course of the hearing that Mr. A. D. Adams had previously testified in valuation cases at Racine, Wisconsin, and Cedar Rapids, Iowa, before he testified at Lincoln. That he had given in his testimony at Racine the assumed life of brick buildings at 100 years; at Cedar Rapids, 80 years, and at Lincoln, 66.6 years (Transcript, p. 1266). That he had given the assumed life at Racine of gas holders at 100 years; at Cedar Rapids, 80 years, and at Lincoln, 66.6 years; that he had given the assumed life of coal gas benches at Racine at 50 years; at Cedar Rapids, 40 years, and at Lincoln, 33.3 years; condensers and scrubbers at Racine at 50 years; Cedar Rapids at 40 years; Lincoln, 33.3 years (p. 3717); mains, Racine, 100 years; Cedar Rapids, 80 years; Lincoln, 50 years (Transcript, pp. 1101-7). Similar differences on other corresponding items of equipment were shown to exist between his testimony in Racine, Cedar Rapids and Lincoln. He testified:

“Q. Do you recall now where you got the information upon which you based or assumed the estimated life of the equipment at Racine? A. I got it mainly from plants in Massachusetts” (Transcript, p. 1266).

\* . . . . \*

"Q. In Cedar Rapids case you brought the buildings from 100 years in Racine to 80 years in Cedar Rapids and in Lincoln you brought it to 66.6 years? A. Oh, yes; which shows that it is consistent" (Transcript, p. 1266).

When these facts were brought to the attention of the witness he insisted that he was growing more conservative in his assumed life of gas plants and equipment and that these variances showed that he was consistent and conscientious. But it was then made to appear that he testified in Cedar Rapids in 1907, Racine, 1909, and Lincoln, 1913. So that his assumed life for a gas holder, for instance, increased from Cedar Rapids, 80 years, to Racine, 100 years, and then fell off again in Lincoln to 66.6 years; and the same was true of his life assumption as to other equipment. Of this he said:

"Q. Is there any standard recognized by engineers as the normal life of equipment such as is found here? A. I haven't been able to discover any uniformity in that regard.

"Q. The engineers don't agree? A. I think that is true.

"Q. Some engineers don't even agree with themselves? A. That might be true, a conscientious engineer sometimes changes his opinion.

"Q. And the oftener he changes his opinion the greater the indication that he is conscientious? A. I should want to know all the facts in regard to that.

"Q. Suppose a gentleman who is an expert testified in Racine, Wisconsin, and gave the life of equipment materially different from what he has given it here, and also testified in Cedar Rapids, Iowa, and gave the life of the equipment the same as this here different from the life he gave for this equipment, would you assume that to be an indication of conscientiousness? A. It might or might not be; I should have to know more of the facts" (Transcript, p. 1266).

Is the testimony of the witness—an expert witness, whose conclusions are subject to such unaccountable variations, entitled to be considered seriously by any Court or Judge?

(5) In Exhibit "210" (Transcript, p. 1419) Mr. A. D. Adams purports to show the weight of pipe, as shown by certain pipe bills of the Company, and, as a result of his tabulations of picked bills for pipe since 1901, shows 4-inch pipe in the amount of 55,788 feet with an average weight of 18.8 pounds; 6,408 feet of 6-inch pipe with an average weight of 31.4 pounds; while he used 17 pounds per foot for the 4-inch pipe and 30 pounds for the 6-inch pipe (Transcript, p. 1110). And parallel in time Mr. A. D. Adams testified in Haverhill, Massachusetts, to a weight of 17.5 pounds per foot for the 4-inch pipe prior to 1901 and 19.4 pounds per foot for the 4-inch pipe subsequent to 1901 (Transcript, p. 1133). In view of the fact that the witness testified to one weight here and another at Haverhill, and both within the same period, we are unable to determine which of the two weights given by the witness he believed to be correct, if either. Time intervened in respect of his testimony as to the life of equipment at Racine, Cedar Rapids and Lincoln, which fact he used as an excuse for the variation. But this is not the case in respect to the weight of pipe. As to this variation he does not even attempt to give an explanation. It is apparent that the attempt to save on the weight of the pipe is an attempt to save in the cost. The pipe in stock in the Company's possession was weighed on the scales, tested by the City's weighmaster before the witness testified. Notwithstanding such weight, the witness estimated the 4-inch pipe at 17 pounds a foot, when it actually weighed 19.7 pounds. And the 6-inch pipe at 30 pounds per foot, when it actually weighed 31.17 pounds; and he estimated the 55,788 feet of 4-inch pipe, shown in the bills included in

his Exhibit "212" (Transcript, pp. 1110-11), purchased since 1901; weighing 18.8 pounds at 17 pounds, and estimated the 6.408 feet of 6-inch pipe, shown in the same exhibit, weighing 31.17 pounds, at 30 pounds. If the witness was unwilling to accept the statement of the U. S. Cast Iron Pipe & Foundry Company, the Sheffield Cast Iron Pipe & Foundry Company, and the Massillon Iron & Steel Company as to the weight of pipe, at least he ought to have accepted the weights shown by actual test. We have no doubt that if the witness had estimated the weight of the pipe above that shown by actual weight or by the statement of the pipe companies, that he would have been satisfied upon that evidence of weight to have instantly reduced the amount of his estimate, or, in other words, that an error so apparent in his estimate would have been corrected by him immediately and brought into harmony with his estimate of 19.4 pounds for the same size of pipe at the same time at Haverhill. The net saving in his estimate by reducing the weight of the pipe per foot, as determined by an extended computation, is 353,556.26 pounds, or about 177 tons of cast iron pipe.

(6) It will be remembered that the greatest source of Mr. A. D. Adams' knowledge of gas properties comes from the Massachusetts returns. He so testifies himself:

"I have resorted extensively to these returns in the office of the Massachusetts Gas Commissioners to aid me in forming an opinion among other things as to the amount of cost to the Lincoln Company for the various salaries, office and distribution and general expenses of the Lincoln Company apart from its cost of materials and labor involved in making gas and apart from its taxes" \* \* \* (Transcript, p. 992).

Let us see what the record discloses as to how Mr. A.

D. Adams applied the information so gathered from the Massachusetts returns.

He estimates as the proper amount of expenditure for salaries, office, distribution and general expenses for the period 1907 to 1912, inclusive, an average of .1254 per thousand cubic feet of gas sold (Exhibit "342," Transcript, pp. 1592, 1152); as against an actual average expenditure of .2602.

This difference in cents per thousand cubic feet for the period of 1907 to 1912, inclusive, amounts in dollars to \$168,592.42. We challenged the competency of this estimate as against the actual expenditures, as shown by the company's books, and we directed the Master's attention to a consideration of the Massachusetts returns, from which Mr. A. D. Adams says he reached his estimate.

Referring to Exhibit "425-V" (Transcript, p. 1392), the Court will note the expenditures of the Massachusetts company for "salaries, office, distribution, and general expenses" in cents per thousand for the year 1911, as follows:

"Boston, .12367; Brockton, .25321; Cambridge, .13361; Charleston, .11529; East Boston, .20962; Fall River, .16418; Haverhill, .48407; Lawrence, .12062; Lowell, .18419; Lynn, .17054; Malden, .21094; New Bedford, .18362; Newton, .22593; Pittsfield, .24704; Salem, .19547; Springfield, .18330; Suburban, .24633; Taunton, .14671; Worcester, .07172."

For the year, 1912, as follows:

"Boston, .11232; Brockton, .25800; Cambridge, .12730; Charleston, .10391; East Boston, .19153; Fall River, .13380; Fitchburg, .35039; Haverhill, .30054; Lawrence, .12639; Lowell, .20312; Lynn, .10139; Malden, .15879; New Bedford, .18569; Newton, .22812; Pittsfield, .21865; Salem, .19852; Springfield, .19927; Suburban, .24199; Taunton, .14485; Worcester, .08596" (Exhibit "425-V").

Assuming that Mr. A. D. Adams made a study of the expenditures of the Massachusetts companies, as shown by their returns, for salaries, office, distribution and general expenses, would a study of that item of expense qualify the witness to substitute an estimate of his own, or would his qualifications be limited to producing the results as shown by the reports of the Massachusetts companies with respect to this item? We have taken the burden of producing here in this brief the item of expense involved by the various Massachusetts companies for salaries, office, distribution and general expenses for two years, 1911 and 1912. The court will find in Exhibit "425-V" the abstract showing the expenditures of the Massachusetts companies for this item for the years 1909 to 1912, inclusive. A reference to the item for those years and for all of these companies will show that Mr. A. D. Adams disregarded the experiences of the Massachusetts companies and produced an estimate in this case which does not represent the experience of a single one of the Massachusetts companies. For instance, Haverhill for the year 1911 expended for salaries, office, distribution and general expenses, .48407 per thousand cubic feet of gas. Mr. A. D. Adams in the face of that showing estimates 12 cents per thousand for the Lincoln Company, and criticises an average expenditure of the Lincoln Company for this item since 1907 of .2602. Newton expended .22593 for this item in 1910; Pittsfield, .2704; Brockton, .25321; East Boston, .20962; Malden, .21094; Lynn, .17054. In 1912 Haverhill expended .30054; Fitchburg, .35039; Newton, .22812; Pittsfield, .21865; Surburban, .24199; Brockton, .2580; East Boston, .19153. No expert calculator can take the results of the Massachusetts companies and reach the average figure of .1254 or the figures for 1912 of .12. There is no amount of calculation or no combination of results of the different Massachusetts companies on this

item that will sustain any such absurd estimates. If Mr. A. D. Adams has undertaken to give the results of the experiences of the Massachusetts companies then his conclusions are disproved by an abstract of the returns of those companies offered here in evidence. Why say that 12 cents for this item is proper, based on a study of the Massachusetts companies, when for the same years Haverhill expended over 30 cents and the witness was fresh from testifying in the Haverhill case? It requires more than an expert witness or calculator to approximate 12 cents as a result of the experience of the Massachusetts companies. It takes one who deliberately misinterprets the experiences of those companies to arrive at a figure of 12 cents. The actual figure for that item from the Massachusetts reports completely destroys Mr. A. D. Adams' estimate. It is clearly shown in this record that Mr. A. D. Adams does not know what would be the proper amount for such expenditures except as he may have learned it from a study of those returns. And a study of those returns, which were before the Court so that opportunity for an unbiased and honest inspection was offered, proves that his estimate could not possibly have been based upon said returns.

We submit that as a statistician or otherwise his estimates are discredited by the experiences of the Massachusetts companies; and this fact explains the attempt of the witness near the close of the hearing to impeach the value of the Massachusetts reports and allege that they were dishonestly prepared as the result of corrupt practices on the part of the Massachusetts companies.

If these returns are as valueless as the witness claims them to be, we maintain that the attempt of Mr. A. D. Adams to support his estimates by reference to those returns at the outset of the hearing was a deliberate attempt to deceive the Court.

(7) But in spite of all we have said about Mr. A. D.

Adams, the City's expert witness, nothing he said or did at the hearing can be compared, in consummate absurdity, with the final result he reached. After all his figuring and estimates, his half-truths and concealment, his biased attitude and vindictive cross examination, his deliberate misrepresentation of the Massachusetts returns, and his utter lack of experience as a practical engineer, he reaches a result which brands his entire testimony as unworthy of serious consideration. He concludes that the total present value of the company's investment is \$415,208. Now, the city, whose witness Mr. A. D. Adams is, has continued to demand from the company a return of 20 cents per thousand cubic feet of gas sold since January 1, 1907, the date the rate ordinance went into effect, and the company has been compelled to put up a bond for the return of said amount pending the outcome of this suit. The City has also levied an occupation tax against the company, judgment for which had already been entered in the state court. Calculating interest and penalties to July 1, 1914, the City was demanding from the Company the total sum of \$430,296.27. In short, the City demands \$430,296.27 from the Company, which since 1907 has not paid a dollar in the way of dividends or profits to stockholders, and whose net earnings have been devoted entirely to the cost of manufacturing and distributing gas and making payments of its interest charges. Coincident with this demand for the sum of \$430,296.27, the City presents a witness who says the present value of the Company's property is \$415,208, so that the net result of the operation of the company for seven years, from 1907 to 1914, is that the entire value of the Company's property will be wiped out and the Company will still owe the City \$15,088.27. This is the conclusion of the witness whom the City asks the Court to believe.

The net results of the City's claim is so astounding

that a Court cannot fail to be impressed by the fact that this entire proceeding seems to be a deliberate attempt to confiscate the Company's property.

Now the Master does not make clear in his report how he treats the testimony of Mr. A. D. Adams, or how much weight he attaches thereto. He failed completely to express himself on that point. However, in many instances in his report he quotes Mr. A. D. Adams' figures, which would seem to indicate that he has taken Mr. A. D. Adams' estimates into consideration. Furthermore, practically all of the Master's values are placed (haphazard, it would seem) somewhere between the values submitted by Mr. Lea for the Company and the values given by Mr. A. D. Adams. In consequence it is impossible to avoid a conclusion that the Master must have been influenced by the testimony of the City's witness, and that he must have attached some weight thereto.

(b) *Henry I. Lea.*

The Company placed upon the stand as its expert witness-in-chief, Mr. Henry I. Lea, of Chicago, Illinois. We do not think it essential to discuss in great detail Mr. Lea's qualifications as a gas engineering expert, because such qualifications were practically unquestioned by the City. We will content ourselves, therefore, in giving a short summary of the experience from which his knowledge of the gas business is derived (Transcript, p. 389 *et seq.*).

Mr. Lea's first experience was obtained with the gas company at Madison, Wisconsin, beginning in the year 1896. The first year his duties were largely of a clerical nature, although he was at the works all the time. The second year he was works foreman and the third year works superintendent of the manufacturing plant. He was at Madison a little over three years. From there he went to Peoria, Illinois, as superintendent of construc-

tion of the new gas plant there. It appears that an opposition company was invading the field at Peoria and tore down some old buildings to provide a site for the new gas plant. Some of the old buildings had to come down and others had to be modified before beginning laying the foundation for the new plant. Mr. Lea was in charge of that work until the new works were installed and the plant was actually making gas. This was a coal gas plant with a capacity of about 650 M cubic feet per day. In connection with that property it was necessary to install all the machinery for the manufacture of the gas and everything in connection with the installation of a plant new. A distribution system was also installed, but Mr. Lea did not have charge of that work. From Peoria Mr. Lea went to Fon du Lac, Wisconsin, in the employ of the same people (Dawes Syndicate) as were interested in Peoria. They bought the Fon du Lac plant and sent Mr. Lea there as superintendent and manager of the property. The plant was a coal gas plant with a capacity of about 100,000 or 200,000 cubic feet per day. Mr. Lea was at Fon du Lac about four or five months and was then sent by the Dawes Syndicate to Ottumwa, Iowa, to extend a distribution system and do some remodeling of the plant. He was at Ottumwa about eight or nine months during which time he took trips to Keokuk, Iowa, to take charge of some minor alterations there that would enable them to make coal and water gas at the same time. After Ottumwa, the Dawes Syndicate then sent Mr. Lea to Evanston, Illinois, as superintendent of distribution the first year, as general superintendent the second year, and as manager the third year, until the Evanston property was purchased by the parties interested in the Peoples' Gas Company of Chicago. The capacity of the Evanston plant was approximately 650,000 cubic feet per day. After the

purchase of the Evanston plant, Mr. Lea, at his own request, was employed by the Division Street Station, one of the plants operated by the Peoples' Gas Light & Coke Company of Chicago. That plant was sending out between nine million and ten million feet a day, which was all water gas. When Mr. Lea left the Division Street Station he went to Ft. Wayne, Indiana, as assistant to the president and chief engineer of Western Gas Construction Company, which was devoted exclusively to building gas works apparatus in the nature of condensers for coal and water gas and coke oven gas plants, and the like. This company has shops in Ft. Wayne, employing 450 men, consisting of pattern shops, foundry, forge, blower and machine shops. The company manufactured gas holders, purifiers, condensers, washers, scrubbers, both rotary and static, and in fact practically everything that goes into gas works equipment, except small steam engines and blowers. Mr. Lea remained at Ft. Wayne about a year and a half or two years and then went to Pittsburg for Mr. George Westinghouse in an experimental gas works which had been put up for the purpose of developing gas producers for developing power to be used in the place of steam engines. Of this, Mr. Lea said:

"This plant had not reached any successful commercial stage, and I was placed in charge of the work; I had to build my own organization and had no limit on men, methods or money. While there, I brought out three types of producers that are now being sold by the Westinghouse Machine Company. When I left Pittsburg, we had eleven producers gas plants, of my design in successful operation outside of Pittsburg" (Transcript, pp. 389-90).

After Mr. Lea left the Westinghouse people he opened an office as consulting engineer in Chicago, which is his present business. When asked his experience in valuing

gas properties and determining the rates of sale or purchase, Mr. Lea testified:

"I have made valuations for banks, bond houses, gas companies and individuals of properties having reproduction cost today of more than \$110,000,000. My work has been in something over seventy different cities. I have also made other examinations for companies who were having operating difficulties; the difficulties in their plants; and I have made examination of properties to determine whether changes in method of equipment would be advisable." (Transcript, p. 390.)

Mr. Lea is a man of unquestioned integrity and widespread reputation in the gas business. His authority to speak as an expert on all matters connected with the gas business is unquestioned.

(c) *W. F. Brodnax.*

Mr. Brodnax (Transcript, p. 497) is a gas engineer who made a detailed inventory of all of the company's property. Mr. Brodnax enjoys a high reputation in the gas business. His qualifications as an expert fitted to make this inventory were not questioned at the hearing before the Master. In fact, his inventory was used alike by both parties to the suit. He is one of the two witnesses concerning whose qualifications the Master comments on. The Master said:

"The property was inventoried by Mr. Brodnax, an employe of the company and a gas engineer of long experience. The work seems to have been done with unusual thoroughness" (Transcript, p. 37).

The Master then makes another statement, which is not quite in accordance with the facts. He said, referring to the inventory of Mr. Brodnax:

"The only error discovered in the course of the long trial was one of inclusion; there were none of exclusion" (Transcript, p. 37).

In order that this misstatement of the Master may be corrected without further misunderstanding, we beg to point out this so-called "error of inclusion" was not such, but was merely a mathematical error in addition occasioned by incorrectly carrying a balance from one page to another in footing the figures representing the length of mains.

Mr. Brodnax's qualifications as an expert may therefore be deemed to be admitted.

*(d) Witnesses on Real Estate Valuation.*

The Company introduced the testimony of the following witnesses on the question of real estate valuation: Mr. E. W. Reed, Mr. William A. Green, Mr. C. J. Culbertson, Mr. J. R. Purbaugh.

Mr. Reed is employed by the State Railway Commission as right-of-way valuer and statistician. He has handled real estate for ten or fifteen years, particularly at Holdredge, Nebraska, and for the last three and a half years has been employed by the Railway Commission exclusively on right-of-way valuations (Transcript, p. 556). He states further, concerning what study of real estate values he has made in the City of Lincoln:

"I have made an exhaustive study of real estate values in Lincoln and obtained my information from going over very carefully the existing values of property in all parts of the city; by talking with the county assessor and city tax commissioner and real estate men and by observing closely the property which is listed for sales and the prices which are asked and the prices which are obtained upon real estate sales in the city." (Transcript, pp. 556-7.)

"I have made returns to the commission upon all the land owned by the various railroads and occu-

pied by them as their terminals in this city." (Transcript, p. 1267.)

\* \* \* \*

"I made an appraisal of the real estate, the land or lots owned by the Lincoln Telegraph & Telephone Company."

\* \* \* \*

"Q. Have you appraised any portion of block 77? A. Yes, sir; there is .11 of an acre which belongs to the Burlington railroad in block 77." (Transcript, p. 1267.)

"Q. Have you appraised any property adjacent to block 79? A. I have appraised blocks on three sides of it, I think." (Transcript, p. 1267.)

*Mr. William A. Green* is in the real estate business in Lincoln and has been for about 25 years. He swears that he is acquainted with the fair market value of real estate throughout the city and has been so acquainted with those prices during the last six or seven years. (Transcript, p. 559.)

*Mr. C. J. Culbertson* is in the real estate business in Lincoln and has been for more than 20 years. He swears that he is acquainted with the market value of real estate throughout the city. (Transcript, p. 560.)

*Mr. J. R. Purbaugh* is in the real estate business in Lincoln and has been for four years. (Transcript, p. 561.)

All of these men are, we submit, qualified by actual business experience to give the court the closest approximation to the actual market as is possible in estimating real estate values; and their figures are so nearly in accord that the conclusion must necessarily be drawn that they are speaking with knowledge of the facts.

Opposed to these men the City has introduced the testimony of the following witnesses, who are, the City claims, experts on real estate values in Lincoln. They are:

John Lebsock, Henry J. Amen, George Hagensick and

George P. Monagan. The qualifications of these men as experts on real estate valuation can best be determined by an examination of some of the material portions of their testimony, from which will be disclosed that they knew very little about the value of real estate in Lincoln and their values were found by the Master as "obviously too low."

(c) *Witnesses on Rate of Return.*

The Company introduced the following witnesses, whose testimony was given relative to the market value of securities of the same general nature as the securities of Lincoln Gas & Electric Light Company and as experts regarding the rate of return demanded by investors in such securities.

*John E. Miller*, director of the First National Bank, and for some years a director in the City National Bank, who is engaged in the general merchandise business. (Transcript, p. 585.)

*Frank H. Woods*, president of the Lincoln Telegraph & Telephone Company, which company has total assets of about six million dollars. Mr. Woods is also one of the owners of Woods Bros. Silo & Manufacturing Company, a director of the First National Bank, and a stockholder in many industrial corporations. (Transcript, p. 578.)

*M. W. Folsom*, president of the Nebraska State Bank, and at one time secretary of the Nebraska Central Building & Loan Association. Mr. Folsom owned for a short time the Capital Beach & Milford Railroad Company, which operated a street railway between the city and Capital Beach. (Transcript, p. 576.)

*C. B. Towle*, vice-president of Curtis, Towle & Payne Company, a firm which does between \$500,000 and \$1,000,000.00 worth of business annually. (Transcript, p. 579.)

*E. B. Sawyer*, president of the Cushman Motor Works, whose business extends to all parts of the world (Transcript, p. 580).

*J. D. Lau*, secretary and treasurer and general manager of the H. P. Lau Company, a corporation engaged in the wholesale grocery business and transacting over a million dollars of business annually (Transcript, p. 581).

*P. L. Hall*, president of the Central National Bank, and formerly cashier of the Columbia National Bank (Transcript, p. 581).

*C. H. Beaumont*, cashier of the Nebraska State Bank (Transcript, p. 583).

*Silas H. Burnham*, president of the First National Bank; formerly cashier then president of the American Exchange National Bank of Lincoln (Transcript, p. 587).

*Frank W. Frueauff*, member of the firm of Henry L. Doherty & Company, New York City, public service financiers and operators, president of Denver Gas & Electric Light Co. and president of Lincoln Gas & Electric Light Company (Transcript, p. 777 *et seq.*).

The Company has introduced the testimony of the witnesses above enumerated with a view to place before the Court the average opinion of men engaged in large utility, commercial and banking enterprises, so that the Court in reaching its decision should have at its command ample information with regard to the rate of return demanded by investors in securities such as those of the Lincoln Gas & Electric Light Company.

The City introduced no testimony whatsoever on this subject, except that of Alton D. Adams.

(f) *Witnesses on Valuation of Buildings.*

Beside Mr. Lea, the Company placed upon the stand the following witnesses, whose testimony was introduced as to the valuation of the company's buildings:

*C. P. Hahn*, of Lincoln, a general contractor who has been in that business in Lincoln since 1881. He is the man who built three of the company's buildings, one of them, the generator house, since 1907, and who could testify as to the actual cost on the very buildings in question, as well as give his opinion based on experience (Transcript, p. 1272).

*Ellery Davis*, of Lincoln, an architect, of the firm of Berlinghoff & Davis, which firm has under contract and under construction buildings approximating \$2,000,000.00 in value (Transcript, p. 539). As to his qualifications, he testified:

"Q. Where did you receive your technical education? A. At Columbia University in New York City.

"Q. About what experience have you had in estimating the cost of buildings here in the City of Lincoln? A. It is our custom to make guaranteed estimates of the cost of the work for which we prepare plans.

"Q. To about what extent have you done that sort of work since you have been with this firm? A. For the past six years I have been with Mr. Berlinghoff in his employ and later as a partner and we have estimated beforehand all the buildings we have built, and our estimates in the main have been verified by the figures for the actual cost" (Transcript, p. 1271).

*George K. Abel*, of Lincoln, of the firm of Abel & Roberts, contractors and excavators, who do a great deal of paving for the City and have had large experience in removing dirt in connection with that work (Transcript, p. 547).

*Robert Malone*, of Lincoln, a contractor engaged for some years in the business of public construction, railroading, dirt removing of all kinds and concrete moving (Transcript, p. 538).

In opposition to these men the company offered as wit-

nesses as to the valuation of buildings the following persons: W. J. Assenmacher and James G. Matthews.

Mr. Assenmacher was called as a witness for the City and testified (Transcript, pp. 1230-1242, 1243-4, 1246) that he spent about eight hours in taking measurements and checking up the buildings; that he had no plans and specifications and did not refer to the details as shown in the Brodnax inventory. Mr. Perry Hahn, the contractor who built portions of the Purifying House and portions of the Generator House, was a witness for the company. He had been a public contractor in the City of Lincoln since 1881, and for about thirty-two years has been actively engaged in constructing buildings in the City. He refers in his testimony to the fact that he had built from 75 to 80 important buildings in this City, including the Burlington freight house, Missouri-Pacific station and the Orphanage Home for Bishop Bonacum. His testimony is not referred to in the record of the Master. Mr. Assenmacher had lived in Lincoln about eight years, and during the last seven years had been a general contractor. Mr. Assenmacher did not agree with Mr. Brodnax in the matter of the dimensions of the Purifying House, the thickness of the brick walls, thickness of the stone walls, the number of cubic yards of excavation, the number of brick in the building, or the quantities of other materials. The same is true with respect to the Generator House, Retort House, Booster House, Oil Tank House and Meter Shop.

The Brodnax inventory, which contained the quantities of materials in the buildings, was found by the Master to be correct. The Assenmacher estimate of quantities of materials were at great variance with the Brodnax inventory, and must have been found to be incorrect by the Master.

In his first figure on the Purifying House, Assenmacher had 1,000 cubic yards in excavation; stone wall, 10

feet, 6 inches in height, and had no figure for cost of stairways, gutters, down spouts, plastering, electric wiring, or for the cost of plans and specifications, which he subsequently estimated at 3 per cent of the cost of the building; no details of any steel in the roof, indicating that there were just a few rods, which he had included in the lumber item. On a re-examination of the building, at the request of the Company, he found steel trusses in the roof; found the excavation to be 1,463 cubic yards; found the stone wall to be 11.3 feet high, but refused to change his figure as originally given. In his estimate for the Retort House, he figured a shingle roof, giving the number of M. shingles, but discovered later that the building did not have a shingle roof. In his original figure he had not taken into account the concrete floor in the basement, and did not know that there was one, but refused to change his original figures. In the Generator House he originally estimated 12 cubic yards of concrete in the footings. On discovering that there was 410 feet of wall, he increased the number of cubic yards of concrete for the footings, but stood by his original estimate of cost. He produced a figure of \$3,308 net construction cost for the Generator House, as against an actual cost shown by the records of the Company of \$4,551.51. The Generator House was built in 1907. Mr. Assenmacher estimated 45 cubic yards of excavation for the Oil Tank House. The house was 35 ft. 3 in. by 24 ft., and was 10 feet from the top of the ground to the bottom of the pit. The roof came down to a level with the ground. Notwithstanding this situation, Assenmacher testified to a flight of six or seven steps leading up to the door entering the Oil Tank House (2191). He refused to make any change in his original estimate of the cost after a re-examination and after being advised as to the character of the structure involved. He estimated the cost of the Booster House at

33d street without being able to get inside of the house. He testified that he looked through the window and could see down into one corner of the basement. He had no brick in the foundation, while the Brodnax inventory showed 5,829 brick. He showed a net construction cost of his original figure of \$471.25, as against \$721.00 shown by Lea, and refused to make any change in his figures. In none of the buildings did he estimate any cost for piping for water, and his estimated cost of the brick in the Generator House, built during the pendency of this suit, was \$7 a thousand, as against an actual cost to the contractor of \$7.50. The testimony of Assenmacher as to the cost of these buildings was on a par with the testimony of the witness, Matthews, presented by the City for the purpose of showing the cost of excavation. It was valueless and ought not to have found its way into the report of the Master. The contractor, who constructed the brick portions of the buildings and the record of the actual cost of the buildings to the Company, should have been shown in the Master's report, if the cost of the buildings was to be considered as a factor showing present value.

Mr. Matthews proved, upon examination, to know so little about the subject on which the City attempted to qualify him as an expert, that the weight of his testimony was, to say the least, negligible. Whatever of value there was to the evidence introduced through him, merely tended to corroborate the Company's witnesses; and this fact was so obvious that the Master, upon the completion of Mr. Matthews' testimony, remarked that the expense of introducing said testimony ought to be charged to the Company.

(g) *Witnesses on Valuation of Works Equipment.*

Besides Mr. Lea, the company placed upon the stand the following witness, whose testimony was introduced

as to the valuation of the company's works equipment:

*Edward M. Steinmueller* (Transcript, pp. 516 *et seq.*), who is at present connected with the Western Gas Construction Company. That company manufactures and installs everything for a gas plant. He testified as to his own qualifications that he has been connected with the gas business for twenty-five years. For eighteen years he had been with the firm of Bartlett, Haywood & Company, who are manufacturers of the larger equipment used in gas plants such as gas holders and appliances for the manufacture of coal gas. They are the only concern who manufacture for instance the larger gas holders from five to fifteen million feet capacity. Mr. Steinmueller was connected with said firm from 1889 to 1906. He commenced as assistant to the general manager and afterwards took care of the estimating and part of the sales; that is, estimating the value of the different apparatus entering into the construction of the plant. In 1906 he became associated with Cruse-Kemper, of Philadelphia, manufacturers of plate metal works, connected with gas works, such as gas holders, steel purifiers, oil tanks and works of that character. The witness was the manager of that plant during which time he did the designing for the construction of the equipment that firm manufactured. In 1908 Mr. Steinmueller went with the Kerr-Murray Manufacturing Company of Ft. Wayne, Indiana. This firm built, designed and installed coal gas equipment, gas holders, condensing apparatus, purification apparatus, iron works for benches, etc. In fact, they are practically the oldest manufacturers of gas works equipment in this country. Mr. Steinmueller was the assistant to the general manager and had charge of the engineering department designing equipment. In 1909 he went with the Chicago Bridge & Iron Works, which firm decided

to enter into manufacture of gas holders. During his connection with this firm he provided them with designs and details of every description and secured contracts and equipped and installed during his stay with them about eleven holders. In 1911, he became associated with his present company, the Western Gas Construction Company, and was at the time he testified the manager of their eastern territory with headquarters in New York City. This company supplies the entire North American continent and is in competition with all the manufacturers of gas equipment therein.

This witness has so equipped himself by his long training to qualify as an expert in valuing gas equipment that there can not be the slightest question as to his qualifications as such. As to his attitude and bearing during the taking of his testimony at the hearing it is worthy to comment that counsel for the City personally remarked upon his perfect fairness.

Beside the testimony of Mr. Lea and Mr. Steinmueller, on the valuation of the Company's works equipment, the company introduced, through the witness O. R. Mallat (its purchasing agent) evidence of the actual price which the Company had paid for its equipment in recent years.

The City introduced no testimony on this subject except that of Mr. A. D. Adams.

(h) *Witnesses on the Valuation of the Distribution System.*

Beside Mr. Lea, the Company placed on the stand the following witnesses, whose testimony was introduced as to the value of the Company's distribution system:

*George L. Campen*, whose qualifications to testify as an expert are as follows (Transcript, p. 527): He has held the office of Assistant City Engineer, City Engineer, Sewer Engineer, Sewer Inspector, Plumbing In-

spector, Building Inspector and Superintendent of Public Works of the City of Lincoln. This was all between the years 1891 to 1898 and 1901 to 1906. He was the Superintendent and Water Commissioner for the canal zone on the Isthmus of Panama, and Assistant City Engineer of the City of Omaha for three years. As City Engineer of Lincoln he had charge of the construction of the paving. The greater portion of the business district of the city was paved while he was City Engineer. During his service in these various capacities he had acquired accurate knowledge as to the values and weights of mains.

*Wilber C. Sunderland* (Transcript, p. 564), who has been connected since 1907 with the Western Supply Company, engaged in the business of wholesale plumbing, steam supplies and water goods, which includes pipe fittings and steam valves of all sorts.

Robert Malone and George K. Abel, above referred to, testified as to the cost of excavation.

The City introduced no testimony on this subject except that of Mr. A. D. Adams.

(i) *Witnesses on Amount of Overhead Charges and "Going Value."*

Beside Mr. Lea, the Company placed upon the stand the following witnesses, whose testimony was introduced as to overhead charges and "going value."

*L. E. Wettling*, a public accountant, who has been in the employ of the Nebraska State Railway Commission and the Attorney General of Nebraska since 1906 (Transcript, p. 793). He testifies:

"I have had much experience with the analysis of accounts of public utilities and an analysis of valuation figures and contentions generally that come in litigations and hearings on matters of that nature before the Nebraska State Railway Commission and

before the courts in several rate cases and tax cases" (Transcript, p. 1271).

In connection with his profession he has had access to the original records, accounts and vouchers of public utility companies as well as the exhibition of that information in hearings before the commission and the courts.

"I have had occasion to refer to tax books, law books and reports of commissions in various states in the Union generally" (Transcript, p. 1271). \* \* \*

"Q. Outside of your specific duties for the Railway Commission proper, have you had occasion to examine the testimony offered in railroad rate cases and the like of that? A. I have; and have assisted in the analysis and writing of briefs in several cases.

"Q. Does that include the famous case of *Shepherd v. The Great Northern* in the circuit court of Minnesota, the so-called Minnesota-Missouri rate case? A. I wrote an *Amicus Curia* brief in the Missouri rate case" (Transcript, p. 1271).

"Q. How long have you followed the vocation of a public accountant? A. For most of all the time since 1885 \* \* \*" (Transcript, p. 1271).

While associated with the Farmers & Merchants Insurance Company, which company had been an investor in the securities and stock of the Lincoln Gas Company, he had, as representative of the insurance company, become a member of the board of directors of the Lincoln Gas & Electric Light Company, and in his capacity as a director had kept in touch in a general way with the affairs of the Gas Company.

In conjunction with his work for the Railway Commission of Nebraska, he kept in close touch with the engineering department of said commission.

"Q. You are entirely familiar with the practices of the companies and different theories which obtain

in matters of valuing a company? A. Yes, sir.

"Q. As held by engineers, courts and commissions? A. Yes, sir.

"Q. And as experienced by public utility companies in actual practice? A. Yes, sir" (Transcript, p. 1271).

*E. C. Hurd*, who is in the business of engineering, for the past five years has been in charge of the valuation of the utility properties for the Nebraska State Railway Commission, but at the time he testified he was engaged in private practice along similar lines with the firm of Hurd, Gerber & Wettling (Transcript, p. 812). As to his practical experience he said:

"I have erected several hundred miles of steam railroad, about 50 miles of electric railway, and have engineered four separate electric light and fuel plants and two hydro-electric plants, and have taken part in the business management of an electric property and have done some little work on gas plants, but I don't make any pretense of being a gas engineer, and I have acted in various capacities in the handling of such properties for bankers and brokers" (Transcript, p. 813).

As to his valuation experience he testified:

"We (the commission) valued the entire railway properties in Nebraska, except street railways; practically all of the telephone properties, and express company properties; and the interurban railway properties; in valuing the steam railroad properties you are valuing almost every conceivable class of property that you can think of, everything connected with the steam railway, even electric light plants, gas plants and all kinds of things" (Transcript, p. 813).

The City introduced no testimony whatsoever as to the method of calculating "going value." Mr. A. D.

Adams was the only witness whose testimony was introduced by the City as to "overhead charges."

(j) *Witnesses on Operating Expenses and Revenue.*

Beside Mr. Lea, the company placed upon the stand the following witnesses, whose testimony was introduced as to operating expenses and revenue and gas properties:

*Frank W. Frueauff*, a member of the firm of *Henry L. Doherty & Co.*, of New York City, and president of the *Denver Gas & Electric Light Company* and the *Lincoln Gas & Electric Light Company*. (Transcript, p. 778.) In addition to the qualifications which these positions naturally afford, he testifies as follows:

"I am a member of the firm of *Henry L. Doherty & Company*, whose business is the operation, ownership and financing of gas, electric and street railway properties. (Transcript, p. 778.)

"We operate about 108 different properties covering from 150 to 175 towns in the United States and Canada." (Transcript, p. 778.)

*B. C. Adams*, who, at the time he testified, was general manager and vice-president of the *Lincoln Gas & Electric Light Company*, and had been connected with that Company since 1906 in various capacities.

The Master describes Mr. *B. C. Adams* as "an exceptionally efficient and capable man having a thorough technical and general knowledge of the gas business." (Transcript, p. 51.)

*George A. Montgomery*, who was at the time he testified, the manager of the *Lincoln Gas & Electric Light Company*, and was formerly superintendent thereof. (Transcript, p. 739.)

Aside from Mr. *A. D. Adams*, the City introduced the testimony of no witnesses whatsoever on operating ex-

penses and revenue, the City's testimony in this regard being confined largely to tabulations of the supposed results of operation as alleged to have been shown by the Massachusetts returns.

We have gone, with some care, into the above discussion of the qualifications of the more important witnesses who testified in this case, and we justify ourselves in taking the Court's time to do so because the Master's report notably fails to enlighten as to the Master's view of the qualifications of the various witnesses or the weight which he attaches to the testimony of each. In a suit of this importance the personal equation is so essentially a consideration that we would not feel that we had fulfilled our duty in aiding the Court in considering the matter by this brief, unless we had summarized the qualifications of the opposing witnesses. It seems to us a fundamental proposition that where experts disagree, the first inquiry of the court should be: Who of the testifying witnesses is best fitted to speak on the matters concerning which he purports to be an expert and on whose opinion is the court justified in relying? Since the Master, in his report, has completely failed to enlighten the Court on this matter we deem it our duty to assist the Court in reaching its own conclusions.

The only inkling which the Master gives in his report as to the general effect which the evidence has on his conclusions is contained in the following language under his heading, "Preliminary Observations":

"The evidence, which is for the most part opinion evidence and generally unreconcilable, makes my conclusions in regard to values, at best, nothing more than fair approximations." (Transcript, p. 36.)

We submit that, in view of the admission of the Master as above quoted, it is doubly important for him to

have stated whose opinion of all of the witnesses had weight with him. It surely could not have been that the Master struck out blindly in the dark at some valuation between the two expressed by the opposing witnesses. And yet, for all that is contained in the report, we can only conclude that this was the precise method that the Master adopted. We submit that the Master's own statement conclusively establishes the vital importance of discussing the testimony, a duty which the Master has signally neglected. We deem it a self-evident proposition that if two witnesses posing as experts give valuations which are widely divergent, and it appears that one of the experts is grossly incompetent, that any judge of the fact must completely disregard the testimony of the incompetent witness and adhere strictly to the values submitted by the other, or else give good reason why the latter witness' estimated values were not convincing. But merely to pick out at random some figure between the two submitted values, *without explanation*, especially where the competency of one witness is so directly and insistently assailed, is, we submit, a method of determining value difficult to justify.

**It is respectfully submitted that the decree of the Court below should be reversed.**

Respectfully submitted,

EDMUND C. STRODE,

CHARLES A. FRUEAUFF,

Solicitors for Appellant.

ROBERT BURNS,

Of Counsel.

STATE OF ILLINOIS

IN THE SUPREME COURT

NO. 1252

LINCOLN GAS & ELECTRIC LIGHT COMPANY

THE CITY OF LINCOLN

BRIEF OF APPELLANT

CHARLES A. BURROUGHS

vs.

Defendant

DREW C. BERRY, JR.

ROBERT BERRY

Appellants

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IN THE  
**Supreme Court of the United States.**

LINCOLN GAS & ELECTRIC LIGHT  
COMPANY,

Appellant,

*against*

THE CITY OF LINCOLN *et al.*,

Appellees.

No. 744.

**Brief of Appellant on Petition for Leave  
and Right to File Bill of Review and  
on Defendants' Motion to Advance  
Cause.**

**Statement of Case.**

This case is here pending upon appeal from a final decree upon the merits affirming the master's report and denying an injunction against the enforcement of an ordinance of the City of Lincoln, Nebraska, fixing a charge to consumers of gas of one dollar net per thousand cubic feet.

The decree of the lower Court was absolute in its terms, giving no opportunity to the appellant to reopen the case or to submit to the Court any further evidence or facts as to what the result would be upon an actual trial and test of the rate fixed by the ordinance.

As shown in appellant's petition for leave to file a bill of review, the rate of one dollar per thousand cubic feet, being the rate per thou-

sand cubic feet required by the ordinance in controversy, has been in effect since May 1, 1915, and the practical and important question now involved in said litigation is whether the company should be required to return to consumers, funds collected while the injunctive orders herein were in force, and which question hinges upon the confiscatory character of the ordinance. Realizing that the best test of the confiscatory character of an ordinance was its practical operation, it was the desire of appellant to produce to this Court, for its consideration, at the time of its consideration of the record herein, the actual operations under the ordinance for as long a period of time as could be presented. Appellant was advised that the said cause would not be reached for consideration in this Court for a considerable time, and if the time should be shortened by an order from this Court advancing said cause for hearing, appellant would not be able to present to this Court the actual conditions of operation as above mentioned, in the event that this Court were willing to permit the same to be presented. If, in the opinion of this Court, this hearing involving the repayment to individuals, is one which should be advanced, the appellant does not desire to object to such advancement provided that this Honorable Court will set such advanced hearing for such a time as will, in the event appellant's petition be granted, permit the taking of the testimony involved therein.

This brief is respectfully submitted by appellant on appellees' motion to advance this cause and in support of a petition of appellant for leave to file a bill of review or a supplemental bill in the nature of a bill of review for the pur-

pose of bringing upon the records of this cause, and for a proper determination and decision of this Court upon appeal, a showing of its receipts and earnings and other matters involved in the actual experiment under the one dollar rate placed into effect by the appellant upon the 1st day of May, 1915.

Approximately two years have elapsed since the one dollar rate was placed in effect and this appeal is about to be submitted on the record now on file in this Court, but there is no evidence in the record, as it now stands, as to the effect of the reduced rate upon the sales, revenue and earnings of the company. All evidence and findings of fact in the record, upon that question, being purely hypothetical and not based upon the actual facts as they can be made to appear from the trial and test of said rate since the date of placing it into effect.

The appellant feels under the circumstances and in light of the decisions of this Court in cases involving a reduction in rate, wherein the remunerativeness of the reduced rate was in question, that it is its duty at this time and before the submission of the appeal in this case on the record as it now stands, to call the attention of the Court to the said trial and test and of the results which the period of test shows, and the bearing which the experiment under the reduced rate has had upon the revenue of the appellant for the following reasons:

- 1.—Such actual knowledge and evidence is now in the possession of the appellant.

- 2.—The failure or neglect on the part of the plaintiff to call the Court's attention to the said

facts at this time might subject appellant to a charge of laches, neglect and bad faith toward the Court if the decree of the Court below should be affirmed without instructions for further proceedings and thereafter this appellant should petition this Court for leave to file a bill of review in the Court below.

3.—The result of said trial rate would materially aid and assist this Court in its consideration and review of the decree of the Court below.

4.—The review of this case below on such new matter may result in a modification of said decree and avoid the necessity of this Court reviewing the same.

5.—The result of said trial of the one dollar rate is new matter in the nature of newly discovered evidence arising since the decree below and the appeal to this Court, which the appellant could not have produced on the trial of the said cause because the same was not in existence.

6.—The actual trial and test of said rate is the best, most satisfactory and convincing evidence that the reduction in the price of gas per thousand cubic feet did not result in increased consumption sufficient to render the appellant a reasonable return upon its investment, and was not compensatory and would not render a return to this appellant which is compensatory.

7.—It is the established practice of this Court to have before it evidence of the actual operation of a rate ordinance before passing upon its validity, if possible to secure the same.

8.—In view of the master's findings as to the company's earnings in 1907 (the first year in

which the rate ordinance was to be effective) it is particularly important that evidence of the actual operation of the one dollar rate should be before this Court.

9.—The granting of the leave prayed for will not hinder or delay the hearing of this cause in its due and orderly course.

### **POINT I.**

**Petition for leave to file bill of review should be made to the Appellate Court.**

When new matter in the nature of newly developed or newly discovered evidence has arisen since the decree, and after appeal has been taken, the proper practise is to petition the Appellate Court for leave to file in the Court below a bill of review or supplemental bill in the nature of a bill of review:

“The Appellate Court has power to allow its own decree to be reviewed in the Court below and in causes pending on appeal it has the power to send the record back so that the cause may be reviewed on newly discovered evidence in the Court of original jurisdiction. But it is absolutely necessary in every case that leave of the Appellate Court should first be obtained. The application for such leave may be made in the Appellate Court while the cause is there pending or even after it is finally adjudicated and the mandate of the Appellate Court has been returned to the lower Court and entered as its own decree.”

Street's Federal Equity Practice, Vol. 2, page 1284, Paragraph 2179.

In *Southard v. Russell*, 16 How., 546, 569-570, the Court said:

"As already stated, the decree sought to be set aside by this bill of review in the Court below was entered in pursuance of the mandate of this Court, on an appeal in the original suit. It is therefore the decree of this Court, and not that primarily entered by the Court below, that is sought to be interfered with. The better opinion is, that a bill of review will not lie at all for errors of law alleged on the face of the decree after the judgment of the Appellate Court. These may be corrected by a direct application to that Court, which would amend, as matter of course, any error of that kind that might have occurred in entering the decree. Nor will a bill of review lie in the case of newly discovered evidence after the publication, or decree below, where a decision has taken place on an appeal, unless the right is reserved in the decree of the Appellate Court, or permission be given on an application to that Court directly for the purpose. This appears to be the practice of the Court of Chancery in the House of Lords, in England, and we think it founded in principles essential to the proper administration of the law, and to a reasonable termination of litigation between the parties in Chancery suits."

*In re Gamewell Fire Alarm Tel. Co. et al.*, 73 Fed., 908, at page 911, the Court says:

"In some of these cases before us it was so clear that the application had no equity that we refused it; but in none of them has the rule, or the proper practice under it, been fully stated. First, we will observe that the Supreme Court has made no distinction arising out of any question whether the application is made before or after judgment, or be-

fore or after mandate issued, or before or after the close of the term at which the judgment is rendered. In some of the cases to which we have referred, it is stated that the application may be made after judgment; and, unless it can be made after a mandate has gone down, and even after the term has adjourned at which the judgment was entered, there would evidently arise instances of the grossest injustice for which there could be no relief. We have no doubt that an application may be made, as in this case, after the judgment, after the issue of the mandate, and after the close of the term at which the judgment was entered, subject to certain limitations as to time arising out of the equitable doctrine of laches, and other possible exceptional limitations" (*Ricker v. Powell*, 100 U. S., at p. 109).

In *Society of Shakers v. Watson*, 77 Fed., 512, 513, in which case a petition for rehearing was denied, a petition for certiorari denied and the decree of the lower Court affirmed, and finally on the ground of new matter and newly discovered evidence, a petition for leave to file a bill of review in the Court below was filed in the Appellate Court, Justice Lurton delivering the opinion of the Court said:

"As the decree sought to be reviewed is in fact the decree of this Court, the application for leave to file a bill of review is properly made here. (*Southard v. Russell*, 16 How., 546; *Kingsbury v. Buckner*, 134 U. S., 650, 671; 10 Sup. Ct., 638; *Bank v. Taylor*, 4 C. C. A., 55, 53 Fed., 854.) On a mandate from this Court the Circuit Court can only record our decree and proceed with its own decree as affirmed, or upon the decree it was directed to enter, and has no power to alter, rescind or modify such decree unless leave to

do so is reserved, or first had and obtained by application to this Court. The decrees and mandates of this Court have precisely the same finality as the decrees and mandates of the Supreme Court" (Bissell Carpet Sweeper Co. v. Goshen Sweeper Co., 19 C. A., 25, 72 Fed., 545).

In *Sheller v. Alexander*, 211 Fed., 544, 546, the Court said:

"(3) While the cases are not fully in accord as to the proper procedure to be followed when an application is made for a rehearing on account of newly discovered evidence, it is apparent from the decisions that if a decree has been entered in the lower Courts, and an appeal has been taken therefrom to the Circuit Court of Appeals, so that the Appellate Court has jurisdiction, the proper proceeding is for the petitioner to file a petition duly verified and addressed to the Appellate Court, and praying for leave to file in the lower Court a supplemental bill in the nature of a bill of review" (*In re Gamewell*, 73 Fed., 908, 20 C. C. A., 111; *Westinghouse Co. v. Stanley*, 138 Fed., 823, 71 C. C. A., 189; *Bliss v. Reed*, 106 Fed., 318, 45 C. C. A., 304; *Boston Railroad Company v. Bemis Co.*, 98 Fed., 121, 38 C. C. A., 661).

In *Watson v. Stevens*, 53 Fed., 31, 34, the case which had been heard and decided upon September 6th, 1892, upon appeal, and new matter and newly discovered evidence was discovered before the mandate went down, and upon the 28th of September, the appellees filed in the Circuit Court of Appeals a petition supported by affidavits and showing the new matter and newly discovered evidence, the Court ordered as follows, *per curiam*:

"Ordered, that whereas, it appears from the suggestion of the counsel for the appellees made in open Court, and accompanied with a verified petition and affidavits, that the appellees conceive that they will have just cause for application for leave to file a bill of review and to proceed with such bill, this Court reserved to the appellee's liberty to file such application, and proceed thereon and on such bill of review in the Circuit Court, as the Circuit Court may determine; and this order shall form a part of the mandate in this cause, which shall issue forthwith."

In *Kimberly v. Arms*, 40 Fed., 548, the Court at pages 550-551 says:

"The bill of review, which defendants now apply for leave to file, seeks to open, vacate, and set aside that decree. But before making said application the defendants, during the term of Court at which said decree was rendered, prayed an appeal to the Supreme Court which was allowed upon their giving bond, with sureties, to be approved by the Court. Such appeal-bond was duly executed and approved, and said appeal, so far as this Court is concerned, was thereby perfected before defendants presented this application for leave to file a bill of review. It is, however, stated in the bill of review which defendants asked leave of this Court to file that it is not the purpose of defendants, as at present advised, to perfect their said appeal by filing the record and docketing this cause in the Supreme Court, as required by the rules of practice of that Court. This averment does not, of course, amount to an abandonment of said appeal, nor to a definite purpose or intention to do so, but leaves the question of its further prosecution to the option of appellants. No new proceedings

having been had in this Court between the mandate of the Supreme Court and the decree based thereon, said appeal by defendants was no doubt improvidently taken and allowed. Still it has the effect of transferring the cause, and the decree sought to be reviewed, into the Supreme Court, where it will remain until heard and disposed of on the merits, or dismissed, under the provisions of the ninth rule of said Court, for appellants' failure to file the record and docket the cause. \* \* \* With said appeal pending in the Supreme Court whether rightly or improvidently, this Court clearly has no authority or jurisdiction to entertain a bill of review to impeach said decree, over which it has, for the present, at least (no jurisdiction)."

See also the following authorities:

*In re Potts*, Petitioner, 166 U. S., 263;  
*Fuller v. U. S.*, 182 U. S., 566;  
*Gaines v. Rugg*, 148 U. S., 228;  
*McClintock v. City of Pawtucket*, 180 Fed., 320;  
*Hawkins v. Cleveland C. C. and St. L. Railroad Co.*, 99 Fed., 322.

## POINT II.

**The petitioner has asserted his right at the earliest possible moment and is free from negligence and laches.**

While the time within which a bill of review should be filed is not fixed by statute or rule, the Courts have stated that the bill may be filed so as to present the matters involved at the time of hearing on the merits.

In *Clark v. Killian*, 103 U. S., 766, the syllabus reads:

"A bill of review is the proper mode of correcting errors apparent on the face of the record and it was in this case filed in time, less than two years having elapsed since the original decree was passed."

In this case, decrees were rendered, upon February 17th, 1875 and June 18th, 1875, adjudging certain conveyances null and void. Upon January 4th, 1877, a bill of review was filed for the purpose of setting aside the decrees for errors of law apparent on the face of the record.

Mr. Justice Harlan, page 783 said:

"Taking all the circumstances to be as they are set out in the pleadings, it is perfectly clear that the Court in adjudging the conveyances of the lots above named null and void and ordering them to be sold in satisfaction of Clark's judgment erred in point of law. Consequently, a bill of review was the proper mode of remedying that error. The present bill was filed in time. *Thomas v. Harvie*, 10 Wheat, 146."

In *Jorgenson v. Young*, 136 Fed., 378, the Court says in its opinion, at page 381:

"The rule is well settled in courts of equity of the United States that a bill of review must ordinarily be filed within the time limited by statute for taking an appeal from the decree sought to be reviewed where the review sought is not founded on matters discovered since the decree."

In *Thomas v. Harvie's Heirs*, 10 Wheat, 146.

Mr. Justice Washington delivered the opinion of the Court, and said, pages 150-151:

"It must be admitted that bills of review are not strictly within any act of limitations prescribed by Congress; but it is unquestionable that courts of equity acting upon the principal, that laches and neglect ought to be discountenanced and that in cases of stale demands its aid ought not to be afforded, have always interposed some limitations to suits brought in those Courts. It is stated by Lord Camden in the case of *Smith v. Clay* (Ambl., 643, 3 Bro. C. C., 639, note) 'that as the court of equity has no legislative authority it could not properly define the time of bar by a positive rule, but that as often as Parliament had limited the time of actions and remedies to a certain period in legal proceedings, the Court of Chancery adopted that rule and applied it to similar cases in equity.' \* \* \* These principals seem to apply with peculiar strength to bills of review in the Court of the United States, from the circumstance that Congress has thought proper to limit the time within which appeals may be taken in equity causes, thus creating an analogy between the two remedies by appeal and a bill of review so apparent that the Court is constrained to consider the latter as necessarily comprehended within the equity of the provision respecting the former."

And further, at page 151, said:

"Whether a bill of review founded upon matter discovered since the decree is in like manner barred by the lapse of five years after such decree is a question which need not be decided in the present case, since we are all of the opinion that it is in the discretion of the Court to grant leave to file a bill of review for that cause, and that such leave ought not to be granted in a case where it appears that the plaintiff is not aggrieved

by the decree on account of the error so assigned."

In *Westinghouse Electric and Manufacturing Company v. Stanley Instrument Co.*, 138 Fed., 823, the syllabus reads:

"Where it is claimed that a patent in a suit, and against an infringement of which an injunction is sought, expired pending an appeal because of the expiration of a foreign patent for the invention, the facts in relation thereto should be presented to the Appellate Court on or before the hearing on the merits, and the defendant is chargeable with laches if he fails to so present them, which will warrant the Court in denying him leave to file a supplemental bill in the nature of a bill of review to enable him to present the question, after the case has been finally determined on the merits, unless on terms named in the opinion."

At page 825, the Court in its opinion, says:

"Under the circumstances, it was the duty of the petitioner to have brought these facts to our attention at or before the time the appeal was argued on its merits, and it failed in its duty in allowing us to proceed to hearing an issue with regard to an injunction which from the standpoint of the petitioner had ceased to involve anything except moot questions."

In *Novelty Tufting Mach. Co. v. Buser et al.*, 158 Fed., 83-84, the Court says:

"if upon the case made, we have a strong impression that the decree which we have directed to be entered in the Circuit Court ought to be reopened and reviewed in that Court, we will release the lower court

from its obligation to observe our mandate to the extent of allowing it to entertain the application and decide upon its merits, but not otherwise. The decree entered upon the direction of the Appellate Court though in form it is the decree of the lower court, yet it is in substance its own decree, and it ought not for light reasons be allowed to be disturbed.

Nevertheless, if it is seen from circumstances coming subsequently to light that the decree is probably contrary to the justice and right of the case and there has been no negligence or other fault on the part of the aggrieved party the Appellate Court ought not to permit its mandate to stand in the way of the correction of the decree which it has caused the lower court to enter."

Mr. Justice Story, in Section 423 of his Equity Pleadings, says:

"It seems to me to be a general rule that a supplemental bill for newly discovered matter should be filed as soon after the new matter is discovered as it reasonably may be. If, therefore, the party proceeds to a decree after a discovery of the facts upon which the new claim is founded he will not be permitted afterwards to file a supplemental bill in the nature of a bill of review founded on those facts, for it was his own laches not to have brought them forward at an earlier stage of the cause."

In *Hill v. Phelps*, 101 Fed., 650, Sandburn, J., citing Justice Story, approvingly says:

"If, therefore, the party proceeded to a decree after the discovery of the facts upon which the new claim is founded, he will not be permitted afterwards to file a supplemental bill in the nature of a bill of review founded on those facts, for it was his own laches not

to have brought them forward at an earlier stage of the cause."

As hereinbefore stated appellant was desirous of producing to this Court the actual operations under the reduced rate for as long a period as possible, in order that the said rate might be given a fair trial, and appellant, therefore, believes that it has not been guilty of laches or negligence in not before calling the attention of this Court to the said experiment under the one dollar rate.

And appellant in this case feels that as it has knowledge of the result of a trial and test of the one dollar rate for approximately a period of twenty months, it might be possibly open to a charge of laches and bad faith if at this time it did not call this Court's attention to the facts and if thereafter it should petition for leave to file a bill of review or endeavor to bring before the Court in some other subsequent proceeding such facts.

### POINT III.

**The granting of leave to file a bill of review or supplemental bill in the nature of a bill of review is within the sound discretion of the Court, but is granted in all equity cases where justice requires and no mischief is done to adverse parties.**

In the case of *Hopkins v. Hebard et al.*, 235 U. S., 287, Mr. Justice McReynolds said, page 291:

"The function of a bill of review filed for newly discovered evidence is to relieve a meritorious complainant from a clear mis-

carriage of justice where the Court is able to see, upon a view of all the circumstances, that the remedy can be applied without mischief to the rights of innocent parties and without unduly jeopardizing the stability of judicial decrees. The remedy is not a matter of absolute right but of sound discretion. *Thomas v. Brockenbough*, 10 Wheat, 146; *Ricker v. Powell*, 100 U. S., 104, 107; *Craig v. Smith*, 100 U. S., 226, 233; 2 Dan. Ch. Pr., 1577; *Story Equity Pleading*, Paragraph 417, *Street Federal Equity Practise*, Paragraphs 2143, 2156, 2159; *Gibson suit in Ch.*, Paragraphs 1058, 1062."

In *Wiggins Ferry Company v. Ohio & Mississippi Railway Company*, 142 U. S., 396, Mr. Justice Brown said, at page 413:

"When the facts of the case show the plaintiff to have an equitable title for relief, this Court, while it may be unable to afford such relief upon the case made by the bill, has in several instances asserted its power to remand the case to the Court below for an amendment of the pleadings, and such further proceedings as may be consonant with justice."

And further upon page 416 he said:

"Rules of pleading are made for the attainment of substantial justice and are to be construed so as to harmonize with it if possible. A mistaken view of one's rights or remedies should not be permitted wholly to defeat a claim founded upon principals of equity and justice and if the pleadings can be so amended as to admit proof of such claim and such amendment does not introduce a new cause of action, though it may set up a new measure of damages or work a real hardship to the party defendant, it is within the discretion even of the Appellate Court to permit such amendment to be made."

And again in the case of *U. S. v. Coe*, Chief Justice Fuller, citing *Wiggins Ferry Company v. Ohio & Mississippi Railway Company*, 155 U. S., 76, said at page 84:

"\* \* \* And in respect of allowance of amendments when the ends of justice require it, the course has been to remand the cause with directions."

In *Hardin v. Boyd*, 113 U. S., 756, Mr. Justice Harland, at page 761, said.

"In reference to amendments of equity pleadings the Courts have found it impracticable to lay down a rule that would govern all cases. Their allowance must, at every stage of the cause, rest in the discretion of the Court; and that discretion must depend largely on the special circumstances of each case. It may be said, generally, that in passing upon applications to amend, the ends of justice should never be sacrificed to mere form, or by too rigid an adherence to technical rules of practise. Undoubtedly, great caution should be exercised where the application comes after the litigation has continued for some time or when the granting of it would cause serious inconvenience or expense to the opposite side. And an amendment should rarely, if ever, be permitted where it would materially change the very substance of the case made by the bill, and to which the parties have directed their proofs."

In the case of *Ballard v. Searls*, 130 U. S., 50, Mr. Justice Bradley, at page 52, said:

"These facts, however, are of such a character that the appellant may be subjected to great injustice if the cause should go to hearing on the appeal in the present condition of the record; and as they have

occurred since the appeal was taken, there seems to be no mode of affording relief to the appellant except by sending the cause back to the Circuit Court for the purpose of allowing supplementary proceedings to be had in that Court."

And further, upon page 56, the Court proceeds:

"Our decision is that the cause be remanded to the Circuit Court with instructions to allow the appellant, defendant below, to file such supplemental bill as he may be advised in the nature of a bill of review, or for the purpose of suspending or avoiding the decree, upon the new matter arising from the reversal of the decree in the former case of *Anson Searles v. Alva Worden and John S. Worden*, and that such proceedings be had thereon as justice and equity may require. And it is so ordered."

In *Seymour v. White County*, 92 Fed., 115, in the Seventh Circuit, the Court declares the better practice to be for the Appellate Court to grant leave as a matter of course to file a bill of review in the Court below. The Court said, page 115:

"For the necessity of obtaining such leave reference is made to *Bank v. Taylor*, 9 U. S. App., 406, 4 C. C. A., 55, and 53 Fed., 854, in which *Southard v. Russell*, 16 How., 547, 570, and *Kingsbury v. Buckner*, 134 U. S., 650, 671, 10 Sup. Ct., 638, and other cases, are cited. A copy of the bill which it is proposed to file accompanies the petition, but, without consideration of its merits, it is deemed the better practice, unless for special reason to the contrary, to grant the petition as of course. To the extent, therefore, that the leave of this Court is necessary and may be granted, it is ordered that the petitioner have leave to file in the Court below the bill

proffered, or such other or amended bill or petition as he may be advised, and that the costs of this proceeding be taxed against the petitioner."

In *Novelty Tufting Machine Co. v. Buser*, 158 Fed., 84, *supra*, on a petition for leave to file a bill of review in the Court below before Lurton, Severens and Richard, Circuit Judges, it was said:

"Nevertheless, if it is seen from circumstances coming subsequently to light that the decree is probably contrary to the justice and right of the case and there has been no negligence or other fault on the part of the aggrieved party, the Appellate Court ought not to permit its mandate to stand in the way of the correction of the decree which it has caused the lower Court to enter."

We respectfully submit that justice requires that the appellant should be allowed the right to bring upon the records of this case the evidence of the effect that the reduction in rate has had upon the earnings and revenue of the appellant, and that by the bringing of the said facts upon the records of this Court no injustice or mischief or inconvenience will be done to the City of Lincoln, appellee, or to any consumer of gas or inhabitant within the City of Lincoln. In the event that the ordinance as passed by the Council of The City of Lincoln should be declared to be operative and binding, the City of Lincoln and the consumers of gas within that City entitled to refund in that event, are fully protected and have been protected at all times by a bond filed in this cause with approved sureties, so that whatever the effect of a refund to the consumers might

have upon the appellant, Lincoln Gas & Electric Light Company, the consumers will not suffer. However, in the event the ordinance at this time should be sustained, and the appellant required to refund such excess charges to the consumers, that refund will be made in small amounts to many hundreds of different persons, and it would be practically impossible for this appellant or for the sureties upon the said bond to later recover the amount so paid to the individual consumers, in the event that at a later date the ordinance was held to be confiscatory. We, therefore, say that no injustice or injury can be suffered by the appellee, the City of Lincoln, or any consumer of gas within the said City, in any manner or form, if the leave prayed for be granted, and that the only injury which may be sustained by anyone would be to your appellant, if the leave be denied, and that equity and justice are with the appellant in this matter, and the Court should in its sound discretion grant the leave as petitioned.

#### **POINT IV.**

**The Court below, if it dismissed the bill, should have dismissed it without prejudice to reinstate the case for subsequent hearing after the one dollar rate had been put to actual trial and test.**

All the evidence submitted as to the effect of a reduction in rate upon the earnings of the appellant and the effect of the said reduction in the consumption and additional sales of gas within the City of Lincoln were based solely upon conjecture. The ordinance had not been put into operation and the conclusion of the master and

the Court below was based solely upon evidence and theories projected into the future. We submit that the best and most satisfactory evidence as to the effect of a reduction in rate is an actual trial and experiment under the reduced rate.

The master in his findings reported to the Court that the appellant would receive, with gas selling at one dollar per thousand cubic feet, a return of 5.12% upon its investment in 1907. He found "a considerable number of witnesses testified with respect to the return upon capital invested in banking, merchandising and other businesses in the City of Lincoln, and from their testimony I find that eight per cent. is the lowest rate sought and generally obtained in such businesses." But that "I cannot believe that a rate not lower than six per cent. upon their invested capital could be regarded as confiscatory."

The actual return to this appellant as found by the master was at that time confiscatory, but he found that: "All human experience has shown that increased consumption follows quickly a reduction in the price of commodities, and the evidence in this case satisfactorily shows that gas is no exception to the rule. I find that with gas selling at one dollar per thousand cubic feet, plaintiff would have received since December 1st, 1906, when the rate ordinance was to be effective, not less than six per centum per annum upon the value of the property employed by it in serving the people of Lincoln."

Therefore, finding as he did that the return which appellant would receive upon its investment in 1907, was confiscatory, or at least there was grave doubt as to whether or not it was compensatory, and as the value of the property was

an estimate and is greatly disputed, and much less as found by the master than the value as shown by the appellant by competent testimony, the Court, if it dismissed appellant's bill and dissolved the temporary injunction, should have dismissed it without prejudice to a rehearing, and given the appellant an opportunity to place before the Court below the actual facts resulting from an experiment under the reduced rate. We respectfully submit that this is the accepted doctrine and rule as laid down by this Court in confiscatory rate cases.

Mr. Justice Moody, in delivering the opinion of the Court in the *City of Knoxville v. Knoxville Water Company*, 212 U. S., 1, at page 15, said:

"The precise subject of inquiry was what would be the effect of the ordinance in the future. The operations of the preceding year, or of any other past fiscal year, were valueless if the year was abnormal, and were only of significance so far as they foretold the future. If as in this case sufficient time has passed so that certainty instead of prophecy can be obtained, the certainty would be preferable to the prophecy. In this case there could be no absolute certainty, because the ordinance had never been put in operation. But evidence of the operation of the years succeeding to the ordinance is relevant and of great importance, and by a consideration of such evidence a much greater degree of certainty could be obtained. Suppose, by way of illustration, that before bringing suit the company had put the ordinance into effect and had observed it for a number of years and the result showed that sufficient net income had been realized, is it possible that a suit could be brought and the evidence

confined to a period prior to the ordinance and by a process of speculation the conclusion reached that the ordinance would be confiscatory? Some evidence regarding the income of the company after the passage of the ordinance is in the record, but it subsequently was excluded from consideration. It showed an increase of gross and net earnings, but also an increase in the property devoted to the public use. We are unable to say what the effect of the evidence excluded would be; all we can say is that the inquiry was unduly limited by the exclusion of the evidence of the operation of subsequent years."

The Court further says upon page 17:

"Where the case rests, as it does here, not upon observation of the actual operation under the ordinance, but upon speculation as to its effect based upon the operations of a prior fiscal year, we will not guess whether the substantial return certain to be earned would lack something of the return which would save the effect of the ordinance from confiscation. It is enough that the whole case leaves us in grave doubt. The valuation of the property was an estimate and is greatly disputed. The expense account was not agreed upon. The ordinance had not actually been put into operation. The inferences were based upon the operations of the preceding year; and the conclusion of the Court below rested upon the most unsatisfactory evidence, the testimony of expert witnesses employed by the parties."

Upon page 18, the Court proceeds:

"The slight gain to the consumer which he would obtain from a reduction in the rates charged by public service corporations is as nothing compared with his share in the ruin

which would be brought about by denying to private property its just reward, thus unsettling values and destroying confidence. On the other hand, the companies to be regulated will find it to their lasting interest to furnish freely the information upon which a just regulation can be based.

If hereafter it shall appear under the actual operation of the ordinance, that the returns allowed by it operate as a confiscation of property, nothing in this judgment will prevent another application to the Courts of the United States or to the Courts of the State of Tennessee. But as the case now stands, there is no such certainty that the rates prescribed will necessarily have the effect of denying to the company such a return as would avoid confiscation. For these reasons:

*The decree is reversed and the case remanded to the Court below with directions to dismiss the bill without prejudice."*

In the case of *Willcox et al. v. Consolidated Gas Company*, 212 U. S., 19, Mr. Justice Peckham delivered the opinion of the Court, filed upon January 12th, 1909. On January 4th, 1909, Mr. Justice Peckham made an announcement and in that announcement, as shown in a foot note upon page 23, he said:

"Where as in this case in an action brought before the rate takes effect, complainant fails to sustain the burden of clearly showing that a rate act is confiscatory, the bill should be dismissed without prejudice to the right of the complainant to bring another action after the rate goes into effect, if it then proves to be confiscatory."

Upon page 42, of the opinion, the Court said:

"The value of real estate and plant is to a

considerable extent matter of opinion and the same may be said of personal estate when not based upon the actual cost of material and construction. Depreciation of the value of the plant, mains and pipes is also to some extent based upon opinion. All these matters make questions of value somewhat uncertain, while added to this, is an alleged prospective loss of income from a reduced rate, a matter also of much uncertainty, depending upon the extent of the reduction and the probable increased consumption, and we have a problem as to the character of a rate which is difficult to answer without a practical test through actual operation of the rate. \* \* \* But where the rate complained of shows in any event a very narrow line of division between possible confiscation and proper regulation as based upon the value of the property found by the Court below, and the division depends upon opinions as to value, which differ considerably among the witnesses, and also upon the results in the future of operating under the rate objected to, so that the material fact of value is left much in doubt, a court of equity ought not to interfere by injunction before a fair trial has been made of continuing the business under that rate, and thus eliminating as far as is possible the doubt arising from opinions as opposed to facts."

And the Court proceeds upon page 48, saying:

"There is no particular rate of compensation which must in all cases and in all parts of the country be regarded as sufficient for capital invested in business enterprises. Such compensation must depend greatly upon circumstances and locality; among other things, the amount of risk in the business is a most important factor, as well as the locality where the business is conducted, and the rate

expected and usually realized there, upon investments of a somewhat similar nature with regard to the risk attending them."

And on page 51, the Court said:

"\* \* \* but it is equally true that a reduction in rates will not always reduce the net earnings, but, on the contrary, may increase them. The question of how much an increased consumption under a less rate will increase the earnings of complainant, if at all, at a cost not proportioned to the former cost, can be answered only by a practical test."

Upon page 54 of the same opinion the Court proceeded, saying:

"It may possibly be, however, that a practical experience of the effect of the acts by actual operation under them might prevent the complainant from obtaining a fair return, as already described, and in that event complainant ought to have the opportunity of again presenting its case to the Court. To that end we reverse the decree with directions to dismiss the bill without prejudice and it is so ordered."

In *Northern Pacific Railway Company v. North Dakota* 216 U. S., 579, Mr. Justice Holmes said, page 581:

"It seems to us that the nearest approach to justice that can be made at this time is to follow the precedent of *Willcox et al v. Consolidated Gas Co.* 212 U. S., 19, as nearly as may be, and affirm the decree but without prejudice to the right of the Railroad Company to reopen the case by appropriate proceedings, if after adequate trial it thinks it can prove more clearly than at present the confiscatory character of the rates for coal."

*In re City of Louisville*, 231 U. S., 639, a petition for a writ of mandamus to compel the Judge of the District Court of the United States for the Western District of Kentucky to vacate a supplemental order retaining the case for an actual experiment after the Federal Supreme Court had reversed without prejudice a decree of the District Court enjoining as confiscatory the enforcement of a Municipal ordinance fixing telephone rates, Mr. Justice McKenna in delivering the opinion of the Court said, pages 645-6:

“ \* \* \* The Court considered the opinion and decree of this Court permitted a discretion to retain the case for an actual experiment of the rates. \* \* \* We think the discretion was properly exercised. \* \* \* An actual experiment of the rates had been voluntarily undertaken and had been in effect for more than eight months before the order under review was entered, and the Court conceived that observation of the experiment might secure greater accuracy and confidence in the result and besides inform the Court of matters as they progressed. We repeat, we think the Court did not exceed the discretion permitted.”

In the case of the *City of Louisville v. Cumberland Telephone & Telegraph Co.*, 231 U. S., 652, a case decided upon the same day as *in re City of Louisville*, the decision was governed by the principles announced in *re City of Louisville*, *supra*.

In *Des Moines Gas Co. v. City of Des Moines*, 238 U. S., 153, Mr. Justice Day said, page 173.

“While we agree with the Court below that it was right to confirm the Master's report and dismiss the bill, we think in view of the

fact that the attack upon the rates was made before the ordinance went into effect and before actual application of the rates could demonstrate whether they were remunerative or not, that the Court should have followed the recommendation of the Master and dismissed the bill without prejudice. We think this is particularly so in view of the fact that ordinarily time alone can satisfactorily demonstrate in a case like this whether or not the rates established will prove so unremunerative as to be confiscatory, in the sense in which that term has been defined in rate making cases. The Master's suggestion has the support of the judgment of this Court in *Knoxville v. Knoxville Water Co.*, 212 U. S., 1, and *Willecox v. Consolidated Gas Co.*, 212 U. S., 19.

"With the modification that the bill be dismissed without prejudice instead of as the Court below directed, with prejudice, the decree is affirmed with costs."

In the light of the law as it has been established by the Supreme Court of the United States in confiscatory rate cases, and in view of all the circumstances of this case, and especially of the fact that the rate herein questioned has been in effect for approximately a period of two years, and that at this time and before the final submission of this case to this Court upon appeal the results of the actual trial and experiment are in existence and can be placed in the record for further enlightenment of the Court, and are the best, most satisfactory and convincing evidence of the remunerativeness of the rate, we respectfully submit that equity and justice permit this appellant to file the bill as it has herein requested to file, or such pleading or bill as it may be advised by its counsel or this Court.

**POINT V.**

**In view of the master's finding as to the company's rate of earnings in 1907, it is of particular importance that evidence of the actual operation of the one dollar (\$1) rate should be before this Court upon the final hearing of the merits of this appeal.**

The master came to the following conclusion in regard to the rate of return upon the Company's invested capital in the City of Lincoln: "I cannot believe that a rate not lower than 6% upon their invested capital could be regarded as confiscatory."

The master also determined, according to his own figures of valuation, that the company actually earned in the year 1907 (the first year when the rate ordinance was to have been effective), only 5.12% upon its investment as he found it. But the master justifies sustaining the validity of the rate ordinance on the ground that if the \$1 rate had been put into effect, an increased consumption of gas together with an increase in earnings, would follow the reduction in price, and he concludes that if gas had been offered for sale at \$1 per thousand cubic feet during the year 1907, the company would have received not less than 6% upon the value of its investment. He said:

"All human experience has shown that increased consumption follows quickly a reduction in the price of commodities and the evidence in this case satisfactorily shows that gas is no exception to the rule. I find that with gas selling at \$1 per thousand cubic feet, plaintiff would have received since De-

cember 1st, 1906, when the rate ordinance was to be effective, not less than 6% per annum upon the value of the property employed by it in serving the people of Lincoln."

It would seem, therefore, that the entire value of the master's decision depends upon the correctness of his hypothesis that a reduction in the rate would have resulted in an increase of consumption thereby increasing the earnings.

But now that the \$1 rate has been in effect for a period of twenty months there is no further necessity for estimating the effect of the reduction on the company's earnings as it is now possible to secure direct evidence on this point and place the exact facts before this Court at the time the merits of this bill come on for final hearing.

For these reasons the appellant deems it particularly important in this case that a bill of review be granted because it contends that the evidence with regard to the actual operating effect of the \$1 rate should be before this Court in order to enable it to properly pass upon the questions involved in this bill.

#### **POINT VI.**

**The master failed to report and find as instructed by the Supreme Court of the United States.**

In *Lincoln Gas & Electric Light Company v. The City of Lincoln*, 223 U. S., 349, Mr. Justice Lurton, in delivering the opinion of the Court, said, at page 364:

"There should be a full report upon past depreciation, past expense for reconstruction or replacement and past operating expenses, including current repairs. We should be advised as to the gross receipts for recent years and just how these receipts have been expended. Then the amount to be set aside for future depreciation will depend upon the character and probable life of the property, and the method adopted in the past to preserve the property. It can readily be seen that the amount to be annually set aside may be such as to forbid rate reductions because of the requirement of such a fund. The matter is one first for a skilled master, who should make a full report upon the value of the property, the receipts and the expenses of operation and the sums paid out on reconstruction and replacements and in dividends in recent years.

For the reasons indicated we direct that the decree be

*Reversed*, and the cause remanded to the District Court to refer the case to a competent and skilled master to report fully his findings upon all questions raised by either party separately, and with leave to both parties to take any additional evidence they may wish within a time to be fixed by the Court, and that that Court upon such report proceed as equity shall require."

The master in his report failed to make a full report upon past depreciation, past expense for reconstruction or replacement and past operating expenses, including current repairs. He says:

"In computing depreciation I have, so far as reliance has been placed upon arbitrary hypothesis, used what is known as the straight line method as being the most ap-

propriate to the actual situation and condition with which we have to deal and the one best calculated to bring about a right result."

And cites in support of this position Hayes on Public Utilities and Foster Engineering Valuation of Public Utilities and Factories, quoting from each authority.

It will be noted, however, that in the quotation as used by the master, Mr. Hayes, in Section 162, says:

"If there is plant alone as representative of the property of the undertaking, the straight line method *when age and life have been determined with accuracy* will show the absolute loss in value and consequently this loss in value gives the true depreciation of the property."

And Mr. Foster in his work as quoted by the master, says:

"By far the most commonly used method of depreciating machinery and plant is that known as the straight line. By this method *a length of life of the particular apparatus under consideration is estimated and determined by the best experience and judgment available, then this length of life divided into one hundred will give the rate at which the depreciation is to be computed.*"

While the master says in his report:

"The life, age, present condition, fitness and scrap value of the various portions of the plant as shown by the evidence should be taken into account and given due consideration, and as far as practicable that is what has been done in this case,"

yet his report is entirely silent as to the character

and probable life of the property. There are no definite findings on these matters even though both the company and the City placed numerous witnesses on the stand and through them introduced evidence as to the character, age, and probable life of each item of the company's equipment so that the master had abundant material upon which to base and set forth a finding as to these matters, in accordance with the direction of this Court.

Likewise, his report is entirely silent as to the method adopted in the past to preserve the property, in that he has failed throughout his entire report to show the past expense of reconstruction and replacement and current repairs. Although he has dealt at some length with the past operating expenses of the company, he has in all respects failed to in any way separate or show so that the appellant may be informed, or the Court in this case can ascertain, the length of life as assumed by the master in arriving at his depreciation.

Covering the item of money expended for reconstruction and replacement, including current repairs, the master frankly admits that he is unable to make the calculation, although the company's records in recent years were in evidence. In arriving at his amount of depreciation to be allowed for future years he merely sets forth an arbitrary amount of money, without, as is above stated, showing in any way the probable life of the property or the method he has used in arriving at said arbitrary amount. This certainly cannot be said to be in accordance with the instructions of this Court, and is no more enlightening to this Court than the previous decree in this case which was reversed by this Honorable Court. The previ-

ous decision allowed \$8,000 per annum and the master's present findings allowed \$10,000 per annum, but there are no more facts given this Court for its review than previously.

These questions were raised separately by the parties and a full report was asked of the master in respect to those details. The report as affirmed by the Court below can certainly not be said to be in accordance with the instructions of this Court which stated that there should be a *full report upon past depreciation*, past expense for reconstruction or replacement and past operating expenses, including current repairs, and that the amount to be set aside for future depreciation will depend upon the character and probable life of the property and the method adopted in the past to preserve the property.

The master has failed to make a full report upon the value of the property and a complete summary of the evidence and his deductions therefrom and his reasons therefor, and frankly states:

"A summarization of this evidence is quite impossible and would, as far as I can see, aid neither Court nor counsel in testing the correctness of the conclusions which I have reached."

#### **POINT VII.**

**The granting of the leave prayed for will not hinder or delay the hearing of this cause in its due and orderly course.**

At the time this case was placed on the docket the appellant intended to petition this Court for leave to file a bill of review or supplemental bill in the nature of a bill of review, for the purpose

of showing this Court the actual operation of the one dollar rate over as long a period as possible. There was ample time to file such petition and to have the evidence taken pursuant thereto, before the hearing of the appeal of this case would be reached in the ordinary course of the docket. Appellant is making the motion at this time because of the motion made on behalf of the appellee to advance the hearing of this cause.

If the petition of the appellant is granted and appellant is given leave to file a bill of review or supplemental bill in the nature of a bill of review, the taking of the evidence pursuant thereto will be completed and the record thereof will be returned to this Court before the hearing of this cause is reached in the ordinary and usual course of the docket. Appellant, therefore, submits that the granting of its petition by this Court will not hinder or delay the hearing of this cause in its due and orderly course.

## **POINT VIII.**

### **Conclusion.**

From the foregoing authorities it is clear that this Court has jurisdiction at this time to grant appellant the right to file a bill of review in the Court below. That the appellant has made timely application to this Court for such leave. That regardless of the disposition this Court shall make of this case on its merits, leave should be granted. That in the event this Court affirm the decree of the Court below without taking into consideration the facts as result from a trial and test of such reduced rate, great injustice will

be done to the appellant. That while the filing of a bill of review is within the discretion of the Court to which it is addressed under chancery practice, such right is never denied where no mischief, inconvenience or injustice is suffered by the adverse party and where substantial justice will be accomplished.

Wherefore, we respectfully submit that this Honorable Court should remand the case to the Court below with such instructions as to further proceedings as may be proper to enable said Court to take the proofs and bring upon the record of this cause, the result of the actual trial and test of said one dollar rate.

Respectfully submitted,  
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